FIIG A047B

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# FEDERAL ITEM IDENTIFICATION GUIDE FILTERS, ELECTRICAL

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#### Commander

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This Federal Item Identification Guide for Supply Cataloging is issued under the authority of Department of Defense Instruction 5025.7.

The use of this publication is mandatory for US. Federal Activities participating in Federal Catalog System Operations.

BY ORDER OF THE DIRECTOR

/s/

Commander

Defense Logistics Information Service

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#### **GENERAL INFORMATION**

#### 1. Purpose and Scope

This Federal Item Identification Guide (FIIG) is a self-contained document for the collection, coding, transmittal, and retrieval of item characteristics and related supply management data for an item of supply for logistical use. This FIIG is to be used to describe items of supply identified by the index of approved item names appearing in this section.

#### 2. Contents

This FIIG is comprised of the following:

Index of Approved Item Names Covered by this FIIG

Applicability Key Index

Section I - Item Characteristics Data Requirements

Section III - New text that should be here.

Appendix A - Reply Tables

Appendix B - Reference Drawing Groups (as applicable)

Appendix C - Technical Data Tables (as applicable)

#### a. Index of Approved Item Names Covered by this FIIG:

The index lists the approved item names with definitions and item name codes as they appear in Cataloging Handbook H6, applicable to this FIIG. In addition, each name entry is assigned an applicability key for use in relating the characteristics requirements in Section I to the specific item name.

#### b. Applicability Key Index:

The purpose of this index is to provide the user with a ready reference for determining the specific requirements which are applicable to a given approved item name. This index lists all requirements in sequence as they appear in the FIIG. The applicability of a Master Requirement Coded requirement is indicated by the column headed by the specific item name applicability key as follows:

- (1) The letter "X" indicates the requirement must be answered for a full descriptive item.
- (2) The letters "AR" indicate the requirement is to be answered as required by (1) instructional notes within the FIIG; (2) when the reply is predicated on replies to a related main requirement; or (3) when an asterisk (\*) is used in conjunction with the applicability key column in Section I.
- (3) A blank in the column indicates the requirement is not applicable to the specific item name.

#### c. Section I - Item Characteristics Data Requirements:

This section contains the physical and performance characteristics requirements needed to describe and identify an item of supply. These characteristics differentiate one item from all other items of supply and are to be used to meet the needs of all supported functions. This section is arranged in columns. Identification of each column and instructions pertinent thereto are as follows:

#### (1) Applicability Key:

The first column shows the applicability key(s) for each requirement. It indicates whether the requirement need be satisfied for the item being identified. "ALL" indicates that the requirement must be answered for all items covered by the FIIG. One or more alphabetic character(s) or group of one or more alphabetic characters indicates a response is required when describing items with an approved item name or names represented by the key(s). An asterisk (\*) used in conjunction with any applicability key indicates that the characteristic stated in the requirement may not be applicable to all items covered by the FIIG.

#### (2) Master Requirement Codes (MRC):

A four-position code which is assigned to a FIIG requirement for identification of the requirement, cross-referencing requirements in the various sections and appendices of the FIIG, and for mechanized processing and retrieval of FIIG generated data. Absence of a MRC for a requirement indicates a lead-in to requirements with individual MRCs in Appendix B.

(a) The coding technique for providing MULTIPLE/OPTIONAL responses will not be used for a Section I requirement assigned Mode Code A or L that leads to Appendix B sketches with dimensional requirements.

#### (b) Identified Secondary Address Coding:

This technique is for extending the Master Requirement Code so that a unique address is provided for each application of the requirement in relation to the item and is authorized only as instructed within the requirement. Responses coded through this technique will always consist of the following: (1) Master Requirement Codes, (2) indicator code (a single numeric character determined by the number of positions contained), (3) identified secondary address code (1 to 3-digit alphabetic codes determined by the number of predicted replies), (4) the mode code, (5) the reply code and/or clear text response, and (6) end with a record separator (\*). Steps (1) through (6) are repeated for each application of the requirement.

#### (c) AND/OR coding:

A technique for extending the Master Requirement Code to provide a distinctive address for multiple responses to the same requirement. Responses coded through this technique will always consist of (1) Master Requirement Code, (2) mode code, (3) the response or reply code (as instructed by the requirement), (4) a single dollar sign (\$) for an OR condition, or a double dollar sign (\$\$) for an AND condition, (5) the mode code, (6) the response or reply code

(followed by conditions (4) through (6) for each of the multiple responses) and (7) end with a record separator (\*). NOTE: Apply this technique only when instructed by the requirement sample reply (e.g.).

#### (3) Mode Code:

A one-position alphabetic code that specifies the manner in which a response will be prepared. Each requirement assigned a MRC is also assigned a mode code. Sample replies follow each FIIG requirement displaying the proper construction of a response for the assigned mode code. The response to a requirement will always be prepared in accordance with the assigned mode code and sample reply except in the following instances:

- (a) Use of E Mode Code replies is not authorized. If a reply needed to describe an item is not listed in the applicable table, contact the FIIG Initiator.
- (b) Mode Code K may not be used for any requirement unless instructed by the requirement instructions.

#### (4) Requirement:

This portion includes the characteristics data elements and data use identifiers required to identify and differentiate one item of supply from another, narrative definitions, and explanations as to use and method of expression. Instructions for coding and preparing replies are also provided.

#### (5) Reply Code:

A code that represents an established authorized reply to a requirement.

d. Section III - Supplementary Technical and Supply Management Data:

This section includes those characteristics requirements necessary to support specific logistics functions other than National Stock Number assignment.

#### e. Appendix A - Reply Tables:

Tables of authorized replies to requirements and reply codes when the tables are too lengthy for inclusion in Section I/III, when applicable.

#### f. Appendix B - Reference Drawings:

This appendix contains representative illustrations which portray specific variations of one or more generic characteristics. If reference drawings contain requirements pages to be used in conjunction with illustrations for dimensioning purposes, the requirements pages will contain Master Requirement Codes, mode codes, and a statement of the requirement. A response to requirements on a requirements page is necessary only for those Master Requirement Codes applicable to the illustration selected.

#### g. Appendix C - Technical Data Tables:

This appendix contains conversion charts and similar data pertinent to the requirements in Section I/III, when applicable.

3. Enter administrative MRC CLQL immediately following the last FIIG requirement reply, as instructed below:

<u>MRC</u>	Mode Code	Requirement	<u>Example</u>
CLQL	G	COLLOQUIAL NAME (common usage name by which an item is known)	CLQLGWOVEN WIRE CLOTH*

- 4. Special Instructions and Indicator Definitions
  - a. Measurements:

Unless otherwise indicated within a requirement example, enter all measurements in decimal form, carried to the nearest three decimal places, with a minimum of one digit preceding the decimal. For SI (metric), enter all measurements with a minimum of one digit before and after the decimal. For fraction to decimal conversion, see Appendix C.

#### b. Indicators:

A cross hatch (#) following an AIN, MRC, Reply Code or Drawing Number indicates for "ALL EXCEPT USA" use only.

#### 5. Indexes

a. Index of Data Requirements

This index is arranged in alphabetic sequence by Master Requirement Code, cross-referenced to the applicable data requirement and page number(s).

b. Index of Approved Item Names

This index is arranged in alphabetic sequence referenced to Applicability Key.

c. Applicability Key Index

This index is arranged in Applicability Key Sequence.

#### 6. Maintenance

Requests for revisions and other changes will be directed to:

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# FIIG A047B GENERAL INFORMATION INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

3. (Electrical) An item for insertion in an electrical or electronic circuit which introduces a predictable amount

An item designed to pass frequencies within a specified range (band) and to suppress frequencies outside the

**INC** 

00209

App Key

F

#### INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

of opposit to the passage of currents of specified frequency(ies) as they pass through the device.

Approved Item Name

FILTER (3), BAND PASS

FILTER (3), HIGH PASS-LOW PASS

Filter

range (band). Excludes a single inductance, or a single capacitance, or a single resistance. See COIL (as modified); REACTOR; CAPACITOR (as modified); and RESISTOR (as modified).					
FILTER (3), BAND PASS-BAND SUPPRESSION	60470	G			
A single item having the dual function of a FILTER, BAND PASS and FILTER, BAND SUPPRESSION. Each filter may have separate input connections but each filter must have separate output connections.					
FILTER (3), BAND PASS-LOW PASS	60471	Н			
A single item having the dual function of a FILTER, BAND PASS and a FILTER, LOW PASS. Each filter may have separate input connections but each filter must have separate output connections. Excludes a single inductance, capacitance or resistance. See COIL (as modified); REACTOR; CAPACITOR (as modified); and RESISTOR (as modified).					
FILTER (3), BAND SUPPRESSION	00210	В			
An item designed to suppress frequencies within a specified range (band) and to pass frequencies outside the range (band). Excludes a single inductance, a single capacitance, or a single resistance. See COIL (as modified); CAPACITOR (as modified); and RESISTOR (as modified).					
FILTER (3), HIGH PASS	13910	D			
An item designed to pass all frequencies above a specified frequency. Excludes a single inductance, a single capacitance, or single resistance. See COIL (as modified); REACTOR; CAPACITOR (as modified); and RESISTOR (as modified).					

A single item having the dual function of a FILTER, HIGH PASS and a FILTER, LOW PASS. Each filter may have a separate input connection, but each filter must have separate output connections. Excludes a

single inductance, capacitance, or resistor. See FILTER, BAND SUPPRESSION.

60473

#### FIIG A047B GENERAL INFORMATION INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

Approved Item Name	<u>INC</u>	App Key
FILTER (3), LOW PASS	13911	E

An item designed to pass all frequencies below a specified frequency. Excludes a single inductance, a single capacitance or a single resistance. See COIL (as modified); REACTOR; CAPACITOR (as modified); and RESISTOR (as modified).

FILTER (3), LOW-PASS-HIGH PASS- 39402 J BAND PASS

A single item having the triple function of FILTER, LOW PASS; FILTER, HIGH PASS and FILTER, BAND PASS. Each filter may have a separate input connection, but each filter must have separate output connections.

FILTER (3), RADIO FREQUENCY 00765 C INTERFERENCE

An item designed to suppress undesired (interfering) frequencies and have a minimal effect on the desired frequencies when inserted in an electrical power circuit. Excludes items which consist of a single capacitor, inductor, resistor, or devices consisting of only two or more circuit elements of the same basic name. Excludes FILTER, LOW PASS and SUPPRESSOR, IGNITION INTERFERENCE. For items designed to be inserted in a line which is primarily intended to carry high frequency waves modulated with signals such as antenna lead-in, see FILTER, BAND SUPPRESSION and FILTER, BAND PASS. See also LIMITER,

#### FIIG A047B GENERAL INFORMATION APPLICABILITY KEY INDEX

#### **APPLICABILITY KEY INDEX**

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>
NAME	X	X	X	X	X	X	X	X	X
AHAJ	X	X		X	X	X	X	X	X
CQDR	X	X		X	X	X	X	X	X
CRBB	X	X		X	X	X	X	X	X
AHAQ	AR								
AHAS	AR								
AHAU	AR								
AHAV	AR								
CQGC			AR						
AHBB			AR						
AHBC			X						
AHBE			AR						
AHBZ	AR	AR		AR	AR	AR	AR		AR
CRBN	AR	AR		AR	AR	AR	AR	AR	AR
AKNA	X	X	X	X	X	X	X	X	X
CQDW	X	X	X	X	X	X	X	X	X
STYL	X	X	X	X	X	X	X	X	X
ABHP	AR								
ABKW	AR								
ABMK	AR								
ADAQ	AR								
ADAR	AR								
ADAT	AR								
ADAU	AR								
ADJT	AR								
AFMQ	AR								
AHBX	AR								
ASDB	AR								
AXHR	X	X	X	X	X	X	X	X	X
AEBV	AR								
CXJX		AR		AR	AR	AR	AR	AR	AR
ABTD	AR								
AEBY	AR								
AEHA	AR								
AKEJ	AR	AR	AR	AR	AR		AR	AR	AR
CQJX	AR	AR	AR	AR	AR		AR	AR	AR
CQQR	AR	AR	AR	AR		AR	AR	AR	AR
CTTC	AR	AR	AR			AR	AR	AR	AR
CBBL	AR	AR	AR	AR	AR	AR		AR	AR
CWZH	AR		AR	AR		AR		AR	AR
CWZQ	AR		AR	AR		AR	AR	AR	AR
APPA	AR					AR	AR	AR	AR
FEAT	AR								
CXCY	AR								
CLQL	AR								
TEST	AR								
SPCL	AR								
ZZZK	AR								
									_

#### FIIG A047B GENERAL INFORMATION APPLICABILITY KEY INDEX

ZZZT	AR	AR	AR	AR	AR	AR	AR	AR	AR
ZZZW	AR	AR	AR	AR	AR	AR	AR	AR	AR
ZZZX	AR	AR	AR	AR	AR	AR			AR
ZZZY	AR	AR	AR	AR	AR	AR	AR	AR	AR
CRTL	AR	AR	AR	AR	AR	AR			AR
PRPY	AR	AR	AR	AR	AR	AR	AR	AR	AR
ELRN	AR	AR	AR	AR	AR				AR
NHCF	AR	AR	AR	AR	AR	AR	AR	AR	AR
ELCD	AR	AR	AR	AR	AR	AR	AR	AR	AR
CQFC	AR	AR		AR	AR	AR	AR	AR	AR
CRBC		AR		AR	AR	AR		AR	AR
AHCH	AR		AR	AR	AR	AR	AR	AR	AR
	AR	AR	AR		AR				AR
AHCG			AR						
AHCJ			AR						
AHCK			AR						
	AR	AR	AR	AR	AR		AR	AR	AR
AHBN	AR	AR	AR	AR	AR	A D			AR
		AR	AR	AR AR	AR	AR			AR
AHBS	AR	AR	AR	AR	AR	AR		AR	AR
AHBT	AR	AR	AR	AR	AR	AR		AR	AR
CBME		AR		AR			AR	AR	AR
PKWT	AR	AR	AR	AR	AR	AR	AR	AR	AR
CRDC	AR		AR		AR	AR		AR	AR
CQDZ	AR		AR	AR	AR	AR	AR	AR	AR
AECR	AR	AR	AR	AR			AR AR	AR	AR
AFGA	AR	AR	AR	AR	AR	AR	AR	AR	AR
PRMT	AR	AR	AR	AR	AR	AR		AR	AR
PMWT	AR	AR		AR		AR	AR	AR	AR
PMLC	AR	AR	AR	AR	AR	AR	AR	AR	AR
SUPP	AR	AR	AR	AR		AR	AR	AR	AR
NTRD		AR		AR	AR	AR	AR	AR	AR
FCLS	AR	AR		AR	AR	AR	AR	AR	AR
FTLD	AR	AR	AR		AR	AR	AR	AR	AR
TMDN		AR		AR	AR	AR	AR	AR	AR
RTSE	AR	X	AR	AR	AR	X			X
RDAL	AR	AR		AR		AR	AR	AR	AR
ZZZP		AR		AR		AR	AR	AR	AR
CQRG	AR	AR	AR	AR	AR	AR	AR	AR	AR
	AR		AR	AR	AR	AR	AR		AR
ZZZV	AR		AR	AR	AR			AR	AR
AGAV	AR	AR	AR	AR	AR	AR	AR	AR	AR

#### **SECTION I**

**APP** 

Key MRC Mode Code Requirements

**ALL** 

NAME D ITEM NAME

Definition: A NOUN, WITH OR WITHOUT MODIFIERS, BY WHICH AN ITEM OF SUPPLY IS KNOWN.

Reply Instructions: Enter the applicable Item Name Code from the index appearing in the General Information Section. (e.g., NAMED00209\*)

NOTE FOR MRCS AHAJ, CODR, CRBB, AHAQ, AHAS, AHAU, AHAV, COGC, AHBB, AHBC, AHBE, AHBZ, AND CRBN. REPLY TO THESE REQUIREMENTS FOR THE FIRST SIX FUNCTIONS. IF THE TOTAL NUMBER OF FUNCTIONS EXCEED SIX, ENTER REPLIES FOR THE FIRST SIX FUNCTIONS, OMIT REPLIES TO THE SEVENTH AND SUCCEEDING FUNCTIONS, ENTERING THE TOTAL NUMBER OF FUNCTIONS UNDER MRC FEAT. (e.g., FEATG16 FUNCTIONS\*) TO ESTABLISH INITIAL SEQUENCE OF FUNCTIONS FOR MRC AHAJ, USE Appendix A, Table 1 . IF IDENTICAL, ENTER THE APPROPRIATE REPLIES IN REPLY SEQUENCE FROM Appendix A, Table 2, OR Appendix A, Table 3, OR Appendix A, Table 4, WHICHEVER IS APPLICABLE. IF STILL IDENTICAL, PROCEED TO MRC COOR AND SO ON USING THE ABOVE PROCEDURE UNTIL A SEQUENCE HAS BEEN ESTABLISHED. IF STILL IDENTICAL, ENTER THE NUMERIC VALUE IN ASCENDING ORDER. IF STILL IDENTICAL, PROCEED TO MRC COOR AND SO ON USING THE ABOVE PROCEDURE UNTIL A SEQUENCE HAS BEEN ESTABLISHED. IDENTIFIED SECONDARY ADDRESS CODING (I/SAC) MUST BE USED WITH ABOVE MRCS. IF THE ITEM DOES NOT HAVE MULTIPLE FUNCTONS, USE REPLY 1Y, SINGLE FUNCTION. IF ALL OF THE FUNCTIONS ARE THE SAME, USE REPLY 1Z, ALL FUNCTIONS. THE AND CONDITION CODE (\$\$) WILL ALWAYS BE USED FOR MULTIPLE REPLIES WITHIN THE INDIVIDUAL FUNCTIONS. THE AND CONDITION CODING (\$\$) IS NOT APPLICABLE TO MRCS AHAO, AHAS, AHAU, AHAV, AHBB

APP Key	MRC	Mode Code	Requirements
	AHAJ	J	REFERENCE FREQUENCY PER FUNCTION

Definition: THE FREQUENCY AT WHICH THE INSERTION LOSS IS MEASURED PER FUNCTION, AND TO WHICH ALL RELATED ATTENUATION LOSS MEASUREMENTS ARE REFERRED.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Codes from <u>Appendix A</u>, Table 2, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value. (e.g., AHAJ1YJKZZ900.0\*

AHAJ1AJKAB900.0\*

AHAJ1BJKAC10.2\*

AHAJ1CJMCA4.5\*)

REPLY CODE	<u>REPLY (0359)</u>
IZ	ALL FUNCTIONS
IY	SINGLE FUNCTION
1A	1ST FUNCTION
<i>1B</i>	2ND FUNCTION
<i>1C</i>	3RD FUNCTION
ID	<i>4TH FUNCTION</i>
IE	5TH FUNCTION
1F	6TH FUNCTION

See Appendix C, Table 2, for typical recording points. For BANDPASS and BAND SUPPRESSION, record the center frequency value. For LOWPASS and HIGHPASS, record the cutoff frequency value.

#### A,B,D,E,F,G,H,J (See Notes Preceding MRC AHAJ)

CQDR J INSERTION LOSS AT REFERENCE FREQUENCY PER FUNCTION IN DECIBELS

Definition: THE RATIO PER FUNCTION OF THE POWER DELIVERED TO THE LOAD BEFORE INSERTION OF THE FILTER TO THE POWER DELIVERED TO THE LOAD AFTER INSERTION OF THE FILTER, EXPRESSED IN DECIBELS.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Code from Appendix A , Table 1 , followed by the numeric value. (e.g., CQDR1YJZZ2.0\*

Key MRC

Mode Code Requirements

CQDR1AJAB1.0\*

CQDR1BJAC1.5\*

*CQDR1CJAC25.0\**)

REPLY CODE	REPLY (0359)
<i>1Z</i>	ALL FUNCTIONS
IY	SINGLE FUNCTION
1A	1ST FUNCTION
<i>1B</i>	2ND FUNCTION
1C	3RD FUNCTION
1D	4TH FUNCTION
IE	5TH FUNCTION
IF	6TH FUNCTION

See Appendix C, Table 2, for typical recording points.

A,B,D,E,F,G,H,J (See Notes Preceding MRC AHAJ)

CRBB J FREQUENCY BANDWIDTH PER FUNCTION

Definition: THE DIFFERENCE, PER FUNCTION, BETWEEN THE LIMITING FREQUENCIES WITHIN WHICH PERFORMANCE, IN RESPECT TO SOME CHARACTERISTIC, FALLS WITHIN SPECIFIED LIMITS.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Codes from Appendix A, Table 2, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value. (e.g., CRBB1YJEZZ6.00\$\$JKZZ1.50\*;

CRBB1AJEAB60.00\$\$JKAB1.50\*

CRBB1BJKAC9.50\$\$JKAC12.50\*

CRBB1CJMCA4.00\$\$JMCA5.00\*)

REPLY CODE	REPLY (0359)
1Z	<b>ALL FUNCTIONS</b>
IY	SINGLE FUNCTION
1A	<b>1ST FUNCTION</b>
<i>1B</i>	2ND FUNCTION
<i>1C</i>	3RD FUNCTION
1D	<b>4TH FUNCTION</b>
<i>1E</i>	5TH FUNCTION

APP Key	MRC	Mode Code	Requirements	
		1F	6TH FUNCTION	

See Appendix C, Table 2, for typical recording points.

For band pass types, enter the low and high values of the frequency range within which the signal is not diminished (attenuated) to a specified level.

For band suppression types, enter the low and high values of the frequency range in which the signal strength is reduced (attenuated).

For low pass types, enter the low frequency value and the cutoff frequency value (the point at which the signal is diminished to a specified low strength).

For high pass types, enter the low (specified cutoff) frequency value and high frequency value.

NOTE FOR MRCS AHAQ, AHAS, AHAU, AND AHAV: IF THE SOURCE DATA SPECIFIES A SINGLE IMPEDANCE VALUE, ENTER THE SAME VALUE FOR MRCS AHAQ AND AHAS OR AHAU AND AHAV, AS APPLICABLE. A RATING IS MANDATORY FOR EITHER AHAQ AND AHAS OR AHAU AND AHAV. OMIT A REPLY TO THE REQUIREMENTS THAT ARE NOT APPLICABLE.

*ALL\** (See Note Above and Preceding MRC AHAJ)

AHAQ J SOURCE IMPEDANCE RATING PER FUNCTION

Definition: THE TOTAL OPPOSITION PER FUNCTION, PRESENTED BY A SOURCE OF ENERGY TO THE INPUT TERMINALS OF AN ITEM.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Code from <u>Appendix A</u>, Table 3, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value. (e.g., AHAQ1YJQZZ600.0\*; AHAQ1AJQAB72.0\*; AHAQ1BJQAC2.0\*; AHAQ1CJQCA90.0\*)

<u>REPLY CODE</u>	<u>REPLY (0359)</u>
IZ	ALL FUNCTIONS
IY	SINGLE FUNCTION
IA	1ST FUNCTION
<i>1B</i>	2ND FUNCTION
1C	3RD FUNCTION
1D	4TH FUNCTION
1E	5TH FUNCTION
1F	6TH FUNCTION

*ALL\** (See Notes Preceding MRCs AHAJ and AHAQ)

AHAS J LOAD IMPEDANCE PER FUNCTION

Definition: THE TOTAL OPPOSITION PER FUNCTION, PRESENTED BY A LOAD TO THE OUTPUT TERMINALS OF AN ITEM.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Code from Appendix A, Table 3, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value. (e.g., AHAS1YJQZZ600.0\*;

AHAS1AJQAB600.0\*

AHAS1BJQAC600.0\*

AHAS1CJKCA1.5\*)

REPLY CODEREPLY (0359)1ZALL FUNCTIONS

1Y	SINGLE FUNCTION
<i>1A</i>	1ST FUNCTION
1B	2ND FUNCTION
1C	3RD FUNCTION
1D	4TH FUNCTION
1E	5TH FUNCTION
1F	6TH FUNCTION

ALL\* (See Notes Preceding MRCs AHAJ and AHAQ)

AHAU J INPUT IMPEDANCE PER FUNCTION W/LOAD

Definition: THE TOTAL OPPOSITION PER FUNCTION WITH LOAD (RESISTIVE AND REACTIVE) PRESENTED BY THE DEVICE TO THE SOURCE (ASA C42.65, PARAGRAPH 65.08.399).

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Code from Appendix A, Table 3, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value. (e.g.,

AHAU1YJQZZ700.0\*;

AHAU1AJQAB700.0\*

AHAU1BJKAC10.0\*)

REPLY CODE	REPLY (0359)
IZ	<b>ALL FUNCTIONS</b>
IY	SINGLE FUNCTION
1A	1ST FUNCTION
1B	2ND FUNCTION
<i>1C</i>	3RD FUNCTION
1D	4TH FUNCTION
1E	5TH FUNCTION
IF	6TH FUNCTION

ALL\* (See Notes Preceding MRCs AHAJ and AHAQ)

 $AHAV \hspace{1cm} J \hspace{1cm} \begin{array}{c} OUTPUT \hspace{0.1cm} \textit{IMPEDANCE PER FUNCTION W/SOURCE ACROSS} \\ \textit{INPUT} \end{array}$ 

Definition: THE TOTAL OPPOSITION PER FUNCTION WITH SOURCE ACROSS INPUT (RESISTIVE AND REACTIVE) PRESENTED BY THE DEVICE TO THE LOAD (ASA C42.65, PARAGRAPH 65.08.402).

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Code from <u>Appendix A</u>, Table 3, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value. (e.g.,

*AHAV1YJKZZ10.0\**;

AHAV1AJKAB4.0\*

AHAV1BJKAC4.0\*)

<u>REPLY CODE</u>	<u>REPLY (0359)</u>
IZ	ALL FUNCTIONS
IY	SINGLE FUNCTION
1A	1ST FUNCTION
1B	2ND FUNCTION
<i>1C</i>	3RD FUNCTION
1D	<i>4TH FUNCTION</i>
1E	5TH FUNCTION
1F	6TH FUNCTION

C\*(See Notes Preceding MRC AHAJ)

CQGC J OPERATING VOLTAGE RATING AND TYPE PER FUNCTION

Definition: THE LEVEL OF ELECTRICAL POTENTIAL AND TYPE OF CURRENT, PER FUNCTION, FOR WHICH THE ITEM IS DESIGNED.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Appendix A, Table 4, followed by the applicable Reply Code from Table 2 below, followed by the applicable Reply Code from Appendix A, Table 1, followed by the numeric value. (e.g., CQGC1YJVBZZ200.0\*; CQGC1YJVBZZ200.0\$\$JVCZZ75.0\*; CQGC1AJVBKB50.0\*; CQGC1BJVBKC120.0\*; CQGC1CJVBKD240.0\*)

<u>Table 1</u>	
REPLY CODE	<u>REPLY(0359)</u>
1Z	ALL FUNCTIONS
<i>1Y</i>	SINGLE FUNCTION
<i>1A</i>	1ST FUNCTION
1B	2ND FUNCTION
<i>1C</i>	3RD FUNCTION
1D	4TH FUNCTION
1E	5TH FUNCTION
1F	6TH FUNCTION

<u>Table 2</u> <u>REPLY CODE</u>

REPLY (AB62)

B AC DC

NOTE FOR MRC AHBB: REPLY TO THIS REQUIREMENT ONLY IF REPLY CODE B WAS ENTERED FOR MRC CQGC.

C\* (See Notes Above and Preceding MRC AHAJ)

AHBB J POWER LINE FREQUENCY RATING PER FUNCTION IN HERTZ

Definition: THE CYCLES PER SECOND (HERTZ) OF THE POWER LINE ALTERNATING CURRENT.

Reply Instructions: Enter the applicable I/SAC from the Table below, followed by the Mode Code, followed by the applicable Reply Code from <u>Appendix A</u>, Table 1, followed by the numeric value. (e.g., AHBB1YJZZ400.0\*; AHBB1AJKB60.0\*; AHBB1BJKC60.0\*; AHBB1CJKD60.0\*)

<u>REPLY CODE</u>	<u>REPLY (0359)</u>
IZ	ALL FUNCTIONS
IY	SINGLE FUNCTION
IA	1ST FUNCTION
1B	2ND FUNCTION
<i>1C</i>	3RD FUNCTION
ID	4TH FUNCTION
IE	5TH FUNCTION
IF	6TH FUNCTION

C (See Notes Preceding MRC AHAJ)

AHBC J OPERATING CURRENT RATING PER FUNCTION IN AMPS

Definition: THE LEVEL OF ELECTRICAL FLOW, PER FUNCTION, FOR WHICH THE ITEM IS DESIGNED TO OPERATE, EXPRESSED IN AMPERES.

Reply Instructions: Enter the applicable I/SAC from the Table below, followed by the Mode Code, followed by the applicable Reply Code from <u>Appendix A</u>, Table 1, followed by the numeric value. (e.g., AHBC1YJZZ100.0\*; AHBC1AJKB70.0\$\$JKC90.0\*

AHBC1BJKC90.0\*

AHBC1CJKC30.0\*)

REPLY CODE	<u>REPLY (0359)</u>
1Z	ALL FUNCTIONS
<i>1Y</i>	SINGLE FUNCTION
<i>1A</i>	1ST FUNCTION

1B	2ND FUNCTION
1C	3RD FUNCTION
<i>1D</i>	4TH FUNCTION
1E	5TH FUNCTION
1F	6TH FUNCTION

C\* (See Notes Preceding MRC AHAJ)

AHBE J MAXIMUM VOLTAGE DROP PER FUNCTION

Definition: THE GREATEST AMOUNT OF VOLTAGE LOSS PER FUNCTION, RESULTING FROM THE DEVICES INHERENT OPPOSITION TO THE FLOW OF ELECTRICAL CURRENT.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Appendix A, Table 4, followed by the applicable Reply Codes from Table 2 below, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value, entering reply in same sequence as MRC CQGC. (e.g., AHBE1YJVBZZ0.5\*; AHBE1AJVBKB0.5\$\$JVCKB2.5\*; AHBE1BJVBKC0.5\*)

<u>Table 1</u>	
REPLY CODE	<u>REPLY(0359)</u>
1Z	ALL FUNCTIONS
1Y	SINGLE FUNCTION
<i>1A</i>	1ST FUNCTION
1B	2ND FUNCTION
1C	3RD FUNCTION
1D	4TH FUNCTION
<i>1E</i>	5TH FUNCTION
1F	6TH FUNCTION

<u>Table 2</u>	
<u>REPLY CODE</u>	REPLY (AB62)
B	AC
C	DC

A\*,B\*,D\*,E\*,F\*,G\*,J\* (See Notes Preceding MRC AHAJ)

#### AHBZ J VOLTAGE STANDING WAVE RATIO PER FUNCTION

Definition: THE RATIO OF THE MAXIMUM TO THE MINIMUM VOLTAGE OF THE STANDING WAVE PER FUNCTION. THE LARGER RELATIVE PORTION IS GIVEN, THE LOWER VALUE HAVING AN IMPLIED (NOT GIVEN) VALUE OF ONE (UNITY).

Rely Instructions: Enter the applicable I/SAC from the Table below, followed by the Mode Code, followed by the applicable Reply Code from <u>Appendix A</u>, Table 1, followed by the numeric value. (e.g., AHBZ1YJZZ2.0\*; AHBZ1AJAB1.5\*;

AHBZ1BJAC2.0\*

AHBZ1CJAA2.0\*)

REPLY CODE	<u>REPLY (0359)</u>
IZ	ALL FUNCTIONS
IY	SINGLE FUNCTION
1A	1ST FUNCTION
IB	2ND FUNCTION
1C	3RD FUNCTION
1D	4TH FUNCTION
IE	5TH FUNCTION
IF	6TH FUNCTION

The voltage standing wave ratio (VSWR) is usually expressed as a numeral. (e.g., a VSWR of 2 is 2:1)

A\*,B\*,D\*,E\*,F\*,G\*,H\*,J\* (See Notes Preceding MRC AHAJ)

CRBN J VOLTAGE STANDING WAVE RATIO FREQUENCY LIMITS PER FUNCTION

Definition: THE MINIMUM AND MAXIMUM VALUES OF FREQUENCY, PER FUNCTION, BETWEEN WHICH THE VOLTAGE STANDING WAVE RATIO IS SPECIFIED.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Appendix A, Table 2, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value. Enter the lower limit first, followed by the higher limit. (e.g., CRBN1YJMZZ160.0\$\$JGZZ2.5\*;

CRBN1AJGAB1.0\$\$JGAB3.0\*

CRBN1BJGAC5.5\$\$JGAC7.0\*)

<u>REPLY CODE</u>	REPLY (0359)
IZ	<b>ALL FUNCTIONS</b>
IY	SINGLE FUNCTION
1A	<i>1ST FUNCTION</i>
<i>1B</i>	2ND FUNCTION
1C	3RD FUNCTION
1D	4TH FUNCTION
1E	5TH FUNCTION
1F	<b>6TH FUNCTION</b>

#### **ALL**

#### AKNA D INCLOSURE TYPE

Definition: INDICATES THE TYPE OF INCLOSURE PROVIDED TO COAT, COVER, PROTECT, OR ENCASE THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AKNADAD\*; AKNADAC\$DAN\*)

<u>REPLY</u>	REPLY (AG85)
<u>CODE</u>	
AC	ENCAPSULATED (inclosed in and/or impregnated by a
	material, such as a thermosetting plastic, glass, vitreous
	enamel, etc., in intimate contact with the item)
AN	ENCASED (wholly or partially inclosed in a material
	which provides physical protection to the item. The
	encasement is not necessarily in intimate contact with all
	surfaces of the item and is usually fabricated to separate
	distinctive configuration)
AD	HERMETICALLY SEALED (a structural feature whereby
	an item's inclosure material, such as metal, glass, or
	ceramic, are fused together to prevent the entry, or exit, of
	gases, moisture, or liquids)
AB	UNINCLOSED (includes uninsulated items or items
	insulated by a sleeve or similar protective means)

#### **ALL**

#### CQDW J FUNCTIONAL TERMINAL TYPE AND QUANTITY

Definition: INDICATES THE FUNCTIONAL TYPE AND NUMBER OF TERMINALS PROVIDING ELECTRICAL CONNECTION TO THE ITEM.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Appendix A, Table 11, followed by the applicable Reply Code from Appendix A, Table 8, and the quantity. (e.g., CQDW1ZJACTM1\*;

CQDW1AJAAMB2\$\$JACBB2\*

CQDW1BJAASF2\$\$JACMF2\*

REPLY CODE	<u>REPLY (0359)</u>
1Z	ALL FUNCTIONS
<i>1Y</i>	SINGLE FUNCTION

1A	1ST FUNCTION
1B	2ND FUNCTION
1C	3RD FUNCTION
1D	<i>4TH FUNCTION</i>
<i>1E</i>	5TH FUNCTION
1F	6TH FUNCTION

See Appendix B, Reference Drawing Group A, to determine terminal type.

If Body Style 37, 45 or 46 is selected for MRC STYL, use Reply Codes ACJ or ACL from Appendix A, Table 11.

Use Reply Codes M, P, Q, R from Appendix A, Table 8, only when input and output or input-output and ground terminals are located in a single connector or tube base.

If the source document cites two or more terminal types any of which is acceptable, enter replies using OR coding (\$). (e.g., CQDW1AJAASB2\$JABDB2\*)

Use Identified Secondary Address (I/SAC) Coding to identify the function terminals (except Reply Codes M and Q from Appendix A, Table 8).

When terminal types are different within the functional terminal, use AND coding (\$\$) to separate replies.

#### **ALL**

#### STYL L STYLE DESIGNATOR

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE ITEM.

Reply Instructions: Enter the applicable style number from <u>Appendix B</u>, Reference Drawing Group B. (e.g., STYLL9\*)

ALL

#### AXHR J MOUNTING FACILITY TYPE AND QUANTITY

Definition: INDICATES THE TYPE AND NUMBER OF FACILITIES BY WHICH THE ITEM IS MOUNTED.

Reply Instructions: Enter the applicable I/SAC from Table below, followed by the Mode Code, followed by the applicable Reply Code from <u>Appendix A</u>, Table 6, followed by the quantity. (e.g., AXHR1ZJABY2\*; AXHR1AJABY2\*; AXHR1BJACQ2\*)

<u>REPLY CODE</u>	<u>REPLY (0359)</u>
1Z	ALL FUNCTIONS
1Y	SINGLE FUNCTION

<i>1A</i>	1ST FUNCTION
1B	2ND FUNCTION
1C	3RD FUNCTION
1D	<i>4TH FUNCTION</i>
<i>1E</i>	5TH FUNCTION
1F	6TH FUNCTION

NOTE FOR MRC AEBV: REPLY TO MRC AEBV ONLY IF REPLY CODE ACQ IS ENTERED FOR MRC AXHR.

ALL\* (See Note Above)

#### AEBV J UNTHREADED MOUNTING HOLE DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF AN UNTHREADED MOUNTING HOLE, AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., AEBVJAA0.250\*; AEBVJLA6.3\*; AEBVJAB0.240\$\$JAC0.260\*)

Table 1	
REPLY CODE	REPLY (AA05)
A	INCHES
L	MILLIMETERS
Table 2	
REPLY CODE	REPLY (AC20)
A	NOMINAL
В	MINIMUM
C	MAXIMIM

NOTE FOR MRC CXJX: REPLY TO MRC CXJX ONLY IF REPLY CODE BTW IS ENTERED FOR MRC AXHR.

B\*,D\*,E\*,F\*,G\*,H\*,J\* (See Note Above)

#### CXJX J UNTHREADED BUSHING DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE UNTHREADED BUSHING AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., CXJXJAA0.250\*; CXJXJLA6.3\*; CXJXJAB0.240\$\$JAC0.260\*)

REPLY (AA05)

**INCHES** 

Table 1
REPLY CODE
A

L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

NOTE FOR MRC ABTD: REPLY TO MRC ABTD ONLY IF REPLY CODE ABY IS ENTERED FOR MRC AXHR.

ALL\* (See Note Above)

#### ABTD J MOUNTING SLOT WIDTH

Definition: A MEASUREMENT TAKEN AT RIGHT ANGLES TO THE LENGTH OF THE MOUNTING SLOT, IN DISTINCTION FROM THICKNESS.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ABTDJAA0.125\*; ABTDJLA3.0\*; ABTDJAB0.120\$\$JAC0.130\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

NOTE FOR MRCS AEBY AND AEHA: REPLY TO THESE REQUIREMENTS ONLY IF APPLICABLE TO THE ITEM BEING DESCRIBED. FOR THREE OR MORE MOUNTING FACILITIES IN LINE, ENTER ONLY THE DISTANCE BETWEEN THE OUTERMOST HOLES, SLOTS, OR STUDS.

ALL\* (See Note Above)

## AEBY J DISTANCE BETWEEN CENTERLINES OF MOUNTING FACILITIES PARALLEL TO BODY LENGTH

Definition: THE DISTANCE BETWEEN CENTERLINES OF MOUNTING FACILITIES PARALLEL TO THE LENGTH OF THE ITEM.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., AEBYJAA1.000\*; AEBYJLA2.5\*; AEBYJAB0.975\$\$JAC1.025\*)

Table 1REPLY CODEREPLY(AA05)AINCHESLMILLIMETERS

Table 2REPLY CODEREPLY (AC20)ANOMINALBMINIMUMCMAXIMUM

ALL\* (See Note Preceding MRC AEBY)

# AEHA J DISTANCE BETWEEN CENTERLINES OF MOUNTING FACILITIES PARALLEL TO BODY WIDTH

Definition: THE DISTANCE BETWEEN CENTERLINES OF MOUNTING FACILITIES PARALLEL TO THE WIDTH OF THE ITEM.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., AEHAJAA0.750\*; AEHAJLA19.0\*; AEHAJAB0.740\$\$JAC0.760\*)

Table 1REPLY CODEREPLY(AA05)AINCHESLMILLIMETERS

 Table 2

 REPLY CODE
 REPLY (AC20)

 A
 NOMINAL

 B
 MINIMUM

 C
 MAXIMUM

NOTE FOR MRCS AKEJ, CQJX, CQQR, AND CTTC: IF REPLY CODE AMA, AFA, AHF, OR AET IS ENTERED FOR MRC AXHR, REPLY TO MRCS AKEJ AND CQJX. ALSO, REPLY TO MRCS CQQR AND CTTC WHEN APPLICABLE. IF THREAD DATA IN SOURCE DOCUMENT IS INCOMPLETE, SEE APPENDIX C, TABLE 4, TO DETERMINE THREAD SERIES DESIGNATOR OR DIAMETER.

A\*,B\*,C\*,D\*,E\*,G\*,H\*,J\* (See Note Above)

#### AKEJ D MOUNTING FACILITY SCREW THREAD SERIES DESIGNATOR

Definition: DESIGNATION DISTINGUISHING ONE GROUP OF SCREW THREAD DIAMETER-PITCH COMBINATIONS FROM ANOTHER BY THE NUMBER OF THREADS PER MEASUREMENT SCALE FOR A SPECIFIC DIAMETER ON THE MOUNTING FACILITY.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 5. (e.g., AKEJDNC\*; AKEJDNE\$DNF\*)

A\*,B\*,C\*D\*,E\*,G\*,H\*,J\* (See Note Preceding MRC AKEJ)

#### CQJX J NOMINAL THREAD SIZE

Definition: A DESIGNATION THAT IS USED FOR THE PURPOSE OF GENERAL IDENTIFICATION OF THE THREAD.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., CQJXJA0.164\*; CQJXJL8.0\*)

REPLY CODE
A INCHES
L MILLIMETERS

A\*,B\*,C\*D\*,F\*,G\*,H\*,J\* (See Note Preceding MRC AKEJ)

#### CQQR B THREAD PITCH IN MILLIMETERS

Definition: A MEASUREMENT OF DISTANCE BETWEEN CORRESPONDING POINTS ON TWO ADJACENT THREADS MEASURED PARALLEL TO THE THREAD AXIS, EXPRESSED IN MILLIMETERS.

Reply Instructions: Enter the numeric value. (e.g., COORB1.25\*; COORB1.25\$B1.50\*)

A\*,B\*,C\*,F\*,G\*,H\*,J\* (See Note Preceding MRC AKEJ)

CTTC J THREAD TOLERANCE CLASS

Definition: A NUMERIC-ALPHA DESIGNATOR INDICATING ESTABLISHED PITCH AND CREST DIAMETER TOLERANCE POSITION AND GRADE.

Reply Instructions: Enter the applicable Reply Code from the table below and the designation. (e.g., CTTCJEXT6H\*; CTTCJNTE6G\*)

REPLY CODEREPLY (AN73)EXTEXTERNALNTEINTERNAL

A\*,B\*,C\*D\*,E\*,F\*,H\*,J\*

CBBL D FEATURES PROVIDED

Definition: THOSE FEATURES, NOT OTHERWISE SPECIFIED, WHICH MAY BE REQUIRED FOR PROPER FUNCTIONING OF THE ITEM.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 9. (e.g., CBBLDCYW\*; CBBLDCYW\$\$DCYX\*)

NOTE FOR MRC CWZH: REPLY TO MRCS CWZH AND CWZQ ONLY IF REPLY CODE CGC IS ENTERED FOR MRC CBBL.

 $A^*,C^*D^*,F^*,H^*,J^*$  (See Note Above)

CWZH D FREQUENCY TUNING METHOD

Definition: THE MEANS OF TUNING THE FREQUENCY OF THE ITEM.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 10. (e.g., CWZHDAGN\*)

A\*,C\*D\*,F\*,G\*,H\*,J\* (See Note Preceding MRC CWZH)

CWZQ J TUNABLE FREQUENCY RANGE

Definition: THE MINIMUM AND MAXIMUM FREQUENCY TO WHICH THE ITEM CAN BE TUNED.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 2, followed by the applicable Reply Code from the table below, and the numeric value. (e.g., CWZQJKB900.0\$\$JMC3.2\*)

REPLY CODE REPLY (AB56)
C MAXIMUM
B MINIMUM

NOTE FOR MRC APPA: REPLY TO MRC APPA ONLY IF REPLY CODE CYW IS ENTERED FOR MRC CBBL.

 $A^*,F^*,G^*,H^*,J^*$  (See Note Above)

#### APPA J OUTPUT VOLTAGE RATING

Definition: THE OUTPUT VALUE(S), OR RANGE OF VALUES, FOR WHICH THE ITEM IS RATED.

Reply Instructions: Enter the applicable Reply Code from Table 1 below, followed by the applicable Reply Code from <u>Appendix A</u>, Table 4, followed by the applicable Reply Code from Table 2 below, and the numeric value. (e.g., APPAJCVA10.0\*; APPAJCLB750.0\$\$JCVC1.0\*)

Table 1 REPLY CODE B C	REPLY(AB62) AC DC
Table 2	DEDLY (AC20)
REPLY CODE	REPLY (AC20) NOMINAL
A	
В	MINIMUM
C	MAXIMUM

ALL \* (See Note Preceding MRC CBBL)

#### FEAT G SPECIAL FEATURES

Definition: THOSE UNUSUAL OR UNIQUE CHARACTERISTICS OR QUALITIES OF AN ITEM NOT COVERED IN THE OTHER REQUIREMENTS AND WHICH ARE DETERMINED TO BE ESSENTIAL FOR IDENTIFICATION.

Reply Instructions: Enter the reply in clear text. Separate multiple replies with a semicolon. (e.g., FEATGADJUSTABLE NOSE CLIP\*; FEATGADJUSTABLE NOSE PIECE; DISPOSABLE\*)

ALL \*

#### CXCY G PART NAME ASSIGNED BY CONTROLLING AGENCY

Definition: THE NAME ASSIGNED TO THE ITEM BY THE GOVERNMENT AGENCY OR COMMERCIAL ORGANIZATION CONTROLLING THE DESIGN OF THE ITEM.

Reply Instructions: Enter the reply in clear text. (e.g., CXCYGLINE PROCESSOR CONTROL BOARD\*)

ALL \*

CLQL G COLLOQUIAL NAME

Definition: A COMMON USAGE NAME BY WHICH AN ITEM I KNOWN.

Reply Instructions: Enter the reply in clear text. (e.g., CLQLGWOVEN WIRE CLOTH\*)

ALL\*

#### TEST J TEST DATA DOCUMENT

Definition: THE SPECIFICATION, STANDARD, DRAWING, OR SIMILAR INSTRUMENT THAT SPECIFIES ENVIRONMENTAL AND PERFORMANCE REQUIREMENTS OR TEST CONDITIONS UNDER WHICH AN ITEM IS TESTED AND ESTABLISHES ACCEPTABLE LIMITS WITHIN WHICH THE ITEM MUST CONFORM IDENTIFIED BY AN ALPHABETIC AND/OR NUMERIC REFERENCE NUMBER. INCLUDES THE COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE OF THE ENTITY CONTROLLING THE INSTRUMENT.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the 5-position CAGE Code, a dash, and the document identification number.

(e.g., TESTJA12345-CWX654321\*;

TESTJA1234A-654321\$\$JB5556A-663654\*;

TESTJAA2345-654321\$JB55566-663654\*)

REPLY CODE	REPLY (AC28)
A	SPECIFICATION (Includes engineering type bulletins,
	brochures, etc., that reflect specification type data in
	specification format; excludes commercial catalogs,
	industry directories, and similar trade publications,
	reflecting general type data on certain environmental and
	performance requirements and test conditions that are
	shown as "typical," "average," "nominal," etc.)
В	STANDARD (Includes industry or association standards,
	individual manufacturer standards, etc.)
C	DRAWING (This is the basic governing drawing, such as a
	contractor drawing, original equipment manufacturer
	drawing, etc.; excludes any specification, standard, or other
	document that may be referenced in a basic governing
	drawing)

ALL\*

#### SPCL G SPECIAL TEST FEATURES

Definition: TEST CONDITIONS AND RATINGS, OR ENVIRONMENTAL AND PERFORMANCE REQUIREMENTS THAT ARE DIFFERENT, MORE CRITICAL, OR MORE SPECIFIC THAN THOSE SPECIFIED IN A GOVERNING TEST DATA DOCUMENT.

Reply Instructions: Enter the reply in clear text. (e.g., SPCLGSELECTED AND TESTED FOR NAVIGATIONAL SYSTEMS\*)

ALL\*

#### ZZZK J SPECIFICATION/STANDARD DATA

Definition: THE DOCUMENT DESIGNATOR OF THE SPECIFICATION OR STANDARD WHICH ESTABLISHED THE ITEM OF SUPPLY.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the Commercial and Government Entity (CAGE) Code of the entity controlling the document, a dash, and the document designator. The agency that controls the limited coordination document must be preceded and followed by a slash following the designator. The word canceled or superseded must be preceded and followed by a slash for the designator. Professional and industrial association specifications/standards are differentiated from a manufacturer's specification in that the data has been coordinated and published by the professional and industrial association. Include amendments and revisions where applicable.

(e.g., ZZZKJT81337-30642B\*;

ZZZKJS81349-MIL-D-180 REV1/CANCELED/\*;

ZZZKJP80205-NAS1103\*;

ZZZKJS81349-MIL-C-1140C/CE/\*;

ZZZKJT81337-30642B\$\$JP80205-NAS1103\*)

<u>REPLY</u>	REPLY (AN62)
<u>CODE</u>	
S	GOVERNMENT SPECIFICATION
T	GOVERNMENT STANDARD
D	MANUFACTURERS SOURCE CONTROL
R	MANUFACTURERS SPECIFICATION
N	MANUFACTURERS SPECIFICATION CONTROL
M	MANUFACTURERS STANDARD
A	PROFESSIONAL/INDUSTRIAL ASSOCIATION
	SPECIFICATION
P	PROFESSIONAL/INDUSTRIAL ASSOCIATION

#### **STANDARD**

NOTE FOR MRC ZZZT: IF THE SPECIFICIATION/STANDARD CITED IN REPLY TO MRC ZZZK IS NONDEFINITIVE, REPLY TO MRC ZZZT. THIS REPLY IS THE DATA WHICH IS NOT RECORDED IN SEGMENT C.

ALL\* (See Note Above)

#### ZZZT J NONDEFINITIVE SPEC/STD DATA

Definition: THE NUMBER, LETTER, OR SYMBOL THAT INDICATES THE TYPE, STYLE, GRADE, CLASS, AND THE LIKE, OF AN ITEM IN A NONIDENTIFYING SPECIFICATION OR STANDARD.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 7, followed by the appropriate number, letter, or symbol. (e.g., ZZZTJTY1\*; ZZZTJTY1\$\$JSTA\*; ZZZTJTY1\$JSTA\*)

ALL\*

#### ZZZW G DEPARTURE FROM CITED DOCUMENT

Definition: THE TECHNICAL DIFFERENTIATING CHARACTERISTIC(S) OF AN ITEM OF SUPPLY WHICH DEPART(S) FROM THE TEXT OF A SPECIFICATION OR A STANDARD IN THAT IT REPRESENTS A SELECTION OF CHARACTERISTICS STATED IN THE SPECIFICATION OR STANDARD AS BEING OPTIONAL, OR A VARIATION FROM ONE OR MORE OF THE STATED CHARACTERISTICS, OR AN ADDITIONAL CHARACTERISTIC NOT STATED IN THE SPECIFICATION OR STANDARD.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZWGAS MODIFIED BY MATERIAL\*)

ALL\*

#### ZZZX G DEPARTURE FROM CITED DESIGNATOR

Definition: THE VARIATION WHEN THE ITEM IS IN CONFORMITY WITH A TYPE DESIGNATOR COVERED BY A SPECIFICATION OR STANDARD, EXCEPT IN REGARD TO ONE OR MORE TECHNICAL DIFFERENTIATING CHARACTERISTICS.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZXGAS MODIFIED BY MATERIAL\*)

ALL\*

#### ZZZY G REFERENCE NUMBER DIFFERENTIATING CHARACTERISTICS

Definition: A FEATURE OF THE ITEM OF SUPPLY WHICH MUST BE SPECIFICALLY RECORDED WHEN THE REFERENCE NUMBER COVERS A RANGE OF ITEMS.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZYGCOLOR CODED LEADS\*; ZZZYGAS DIFFERENTIATED BY MATERIAL\*)

ALL\*

#### CRTL A CRITICALITY CODE JUSTIFICATION

Definition: THE MASTER REQUIREMENT CODES OF THOSE REQUIREMENTS WHICH ARE TECHNICALLY CRITICAL BY REASON OF TOLERANCE, FIT, PERFORMANCE, OR OTHER CHARACTERISTICS WHICH AFFECT IDENTIFICATION OF THE ITEM.

Reply Instructions: Enter the Master Requirement Code for the requirement, the reply to which renders the item as being critical. (e.g., CRTLAMATL\*; CRTLAMATL\$\$ASURF\*)

Reply to this requirement only if the header record for the item identification for the item being identified has been coded as critical.

NOTE FOR MRC PRPY: IF DOCUMENT AVAILABILITY CODE B, D, F, OR H, REPLY TO MRC PRPY.

ALL\* (See Note Above)

#### PRPY A PROPRIETARY CHARACTERISTICS

Definition: IDENTIFICATION OF THOSE CHARACTERISTICS INCLUDED IN THE DESCRIPTION FOR WHICH A NON-GOVERNMENT ACTIVITY HAS IDENTIFIED ALL OR SELECTED CHARACTERISTICS OF THE ITEM AS BEING PROPRIETARY AND THEREFORE RESTRICTED FROM RELEASE OUTSIDE THE GOVERNMENT WITHOUT PRIOR PERMISSION OF THE ORIGINATOR OF THE DATA.

Reply Instructions: Enter the MRC codes of the individual characteristics of the description which are marked proprietary on the technical data, using AND coding (\$\$) for multiple characteristics. If all the MRCs are proprietary, enter the reply PACS. If none of the MRCs is proprietary, enter the reply NPAC. (e.g., PRPYAPACS\*; PRPYANPAC\*; PRPYAMATL\$\$ASURF\*)

ALL\*

#### ELRN G EXTRA LONG REFERENCE NUMBER

Definition: A REFERENCE NUMBER EXCEEDING 32 POSITIONS.

Reply Instructions: Enter the entire reference number. Do not include the 5-position Commercial and Government Entity (CAGE) Code unless there is more than one extra long reference number on the NSN, (e.g., ELRNGANN112036BIL060557LEN313605UZ62365\*).

If there is more than one extra long reference number on the NSN, include the CAGE or NCAGE and separate each reference by using the "&" character, (e.g., 28480 ANN112036BIL060557LEN313605UZ62365 & S1234 NN112036BIL060557LEN313605UZ62365).

In determining quantity of characters in the reference number, count will be made after modification in accordance with Volume 2, Chapter 9, FLIS Procedures Manual, DoD 4100.39-M.

NOTE FOR MRC NHCF: IF THE CRITICALITY CODE IS E, H, OR M, REPLY TO MRC NHCF.

ALL\* (See Note Above)

NHCF D NUCLEAR HARDNESS CRITICAL FEATURE

Definition: AN INDICATION OF THE NUCLEAR HARDNESS CRITICALITY OF THE ITEM.

Reply Instructions: Enter the reply code from the table below. (e.g., NHCFDCY\*)

REPLY CODE REPLY (AD05)
CY HARDENED

ALL\*

ELCD D EXTRA LONG CHARACTERISTIC DESCRIPTION

Definition: A DESCRIPTION THAT EXCEEDS 5000 CHARACTERS.

Reply Instructions: Enter the Reply Code from the table below. (e.g., ELCDDA\*)

REPLY (AN58)

**CODE** 

A ADDITIONAL DESCRIPTIVE DATA ON MANUAL

RECORD

NOTE FOR MRCS CQFC AND CRBC: REPLY TO THESE REQUIREMENTS ONLY IF REFERENCE FREQUENCY IS FIXED, NOT TUNEABLE. REPLY TO THESE REQUIREMENTS FOR THE FIRST SIX FUNCTIONS ONLY. USE THE SAME SEQUENCE ESTABLISHED FOR MRC AHAJ TO REPLY TO EACH FUNCTION. IDENTIFIED SECONDARY ADDRESS CODING (I/SAC) MUST BE USED WITH ABOVE MRCS. IF THE ITEM DOES NOT HAVE MULTIPLE FUNCTIONS, USE REPLY 1Y, SINGLE FUNCTION. IF ALL OF THE FUNCTIONS ARE THE SAME, USE REPLY 1Z, ALL FUNCTIONS. THE AND CONDITION CODING (\$\$) WILL ALWAYS BE USED FOR MULTIPLE REPLIES WITHIN THE INDIVIDUAL FUNCTION.

A\*,B\*,D\*,E\*,F\*,G\*,H\*,J\* (See Notes Above)

CQFC J SPECIFIED FREQUENCIES OF DISCRIMINATION PER FUNCTION

Definition: AN INDICATION OF THE NUCLEAR HARDNESS CRITICALITY OF THE ITEM.

Reply Instructions: Enter the applicable I/SAC from the Table below, followed by the Mode Code, followed by the applicable Reply Code from Appendix A, Table 2, followed by the applicable Reply Code from Appendix A, Table 1, followed by the numeric value. (e.g., CQFC1YJKZZ1.00\$\$JMZZ1.00\$\$JMZZ100.00\$\$JGZZ10.00\*; CQFC1AJEAB30.00\$\$JEAB60.00\$\$JKAB1.50\$\$JKAB2.50\*; CQFC1BJKAC7.00\$\$JKAC9.50\$\$JKAC12.50\$\$JKAC15.00\*; CQFC1CJMCA3.00\$\$JMCA4.00\$\$JMCA5.00\$\$JMCA6.00\*)

<u>REPLY CODE</u>	<u>REPLY (0359)</u>
IZ	ALL FUNCTIONS
IY	SINGLE FUNCTION
<i>IA</i>	1ST FUNCTION
<i>1B</i>	2ND FUNCTION
<i>1C</i>	3RD FUNCTION
1D	<i>4TH FUNCTION</i>
1E	5TH FUNCTION
1F	6TH FUNCTION

A\*,B\*,D\*,E\*,F\*,G\*,H\*,J\* (See Note Preceding MRC CQFC)

CRBC J DISCRIMINATION AT SPECIFIED FREQUENCIES PER FUNCTION IN DECIBELS

Definition: THE ALGEBRAIC DIFFERENCE BETWEEN THE INSERTION LOSS AT A SPECIFIED FREQUENCY AND THE INSERTION LOSS AT THE REFERENCE FREQUENCY PER FUNCTION, EXPRESSED IN DECIBELS.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Table 2 below, followed by the applicable Reply Code from Appendix A, Table 1, and the numeric value. (e.g., CRBC1YJAZZ70.0\*; CRBC1YJBZZ60.0\$\$JCZZ80.0\*;

#### CRBC1AJAAB50.0\*

### *CRBC1BJAAC70.0\**)

This characteristic also is referred to as attenuation (relative attenuation) as a function of frequency.

All decibel values less that 1.0 db will be rounded off to 1.0 db. (e.g., 0.8 db to 1.0 db\*)

See Appendix C, Table 2, for typical recording points.

Table 1	
REPLY CODE	REPLY (0359)
1Z	ALL FUNCTIONS
IY	SINGLE FUNCTION
1A	1ST FUNCTION
<i>1B</i>	2ND FUNCTION
1C	3RD FUNCTION
1D	<i>4TH FUNCTION</i>
1E	5TH FUNCTION
IF	6TH FUNCTION
Table 2	
REPLY CODE	REPLY (AC20)
A	NOMINAL
В	MINIMUM
C	MAXIMUM

A\*,C\*,D\*,E\*,F\*,G\*,H\*,J\*

### AHCH J AVERAGE POWER RATING PER FUNCTION

Definition: THE VALUE OF THE AVERAGE AMOUNT OF ELECTRICAL ENERGY PER FUNCTION, WHICH THE ITEM MAY PASS OR DISSIPATE IN CONTINUOUS OPERATION WITHOUT DEGRADATION OF PHYSICAL OR ELECTRICAL CHARACTERISTICS.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Table 2 below, followed by the Reply Code from Appendix A, Table 1, and the numeric value, in that sequence. (e.g., AHCH1YJWZZ2.0\*;

### AHCH1AJWAB2.0\*

### AHCH1BJWAC1.0\*)

For multifunction filters, sequence replies to this requirement so that the first reply is related to the first reply entered for MRC AHAJ, and so on, using Identified Secondary Address (I/SAC) Coding.

Table 1 REPLY CODE IZ IY IA IB IC	REPLY (0359)  ALL FUNCTIONS  SINGLE FUNCTION  1ST FUNCTION  2ND FUNCTION  3RD FUNCTION  4TH FUNCTION
1E	5TH FUNCTION
1F	6TH FUNCTION
Table 2	
REPLY CODE	REPLY (AC33)
L	KILOWATTS
W	WATTS

### ALL\*

### AHBL H PRINCIPAL CIRCUITRY TYPE PER FUNCTION

Definition: INDICATES THE TYPE OF PRINCIPAL CIRCUITRY PER FUNCTION, INTERCONNECTED WITHIN THE ITEM TO PRODUCE THE DESIRED FREQUENCY VERSUS ATTENUATION CHARACTERISTICS.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Table 2 below, followed by the applicable Reply Code from Appendix A, Table 1. (e.g., AHBL1YHAFZZ\*;

### AHBL1AHAFAB\*

### AHBL1BHABAC\*)

Table 1	
REPLY CODE	REPLY (0359)
1Z	ALL FUNCTIONS
IY	SINGLE FUNCTION
<i>IA</i>	1ST FUNCTION
<i>1B</i>	2ND FUNCTION
<i>1C</i>	3RD FUNCTION
1D	<i>4TH FUNCTION</i>
<i>1E</i>	5TH FUNCTION

### 1F 6TH FUNCTION)

Table 2	
<b>REPLY</b>	REPLY (AF17)
CODE	
AJ	CAPACITANCE-INDUCTANCE (mounting end)
AK	CAVITY
AD	CRYSTAL
AF	ELECTROMECHANICAL
AB	INDUCTANCE-CAPACITANCE (LC)
AH	INDUCTANCE-CAPACITANCE, MOUNTING
	END
AG	INDUCTANCE-CAPACITANCE-RESISTANCE
	(LCR)
AC	INDUCTANCE-RESISTANCE (LR)
AE	MECHANICAL
AL	SURFACE ACOUSTIC WAVE
AM	WAVEGUIDE

 $C^*$ 

### AHCG J MAXIMUM TEMP RISE

Definition: THE MAXIMUM PERMISSIBLE TEMPERATURE INCREASE IN THE ITEM AS A RESULT OF ITS OPERATION UNDER NORMAL CONDITIONS.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., AHCGJC10.0\*)

REPLY CODE	REPLY (AB36)
C	DEG CELSIUS
F	DEG FAHRENHEIT

C\*

### AHCJ B FULL LOAD INSERTION LOSS FREQUENCIES IN MEGAHERTZ

Definition: THE SPECIFIED POINTS IN THE FREQUENCY SPECTRUM AT WHICH INSERTION LOSSES (AS A FUNCTION OF FREQUENCY) UNDER FULL LOAD ARE MEASURED, EXPRESSED IN MEGAHERTZ.

Reply Instructions: Enter all frequencies for which insertion loss data is given in ascending numeric sequence, using AND coding (\$\$). (e.g., AHCJB0.0\$\$B1.0\$\$B1.0\$\$B10.0\$\$B100.0\$\$B1000.0\*)

See Appendix C, Table 2, for typical recording points.

 $C^*$ 

# AHCK B FULL LOAD MINIMUM INSERTION LOSS AT SPECIFIED FREQUENCY IN DECIBELS

Definition: THE LEAST PERMISSIBLE VALUES FOR ATTENUATION OF SPURIOUS OR UNWANTED SIGNALS AT DESIGNATED POINTS IN THE FREQUENCY SPECTRUM, EXPRESSED IN DECIBELS.

Reply Instructions: Using the AND coding (\$\$) enter the numeric values for all given loss levels (db) in the order corresponding to the related frequencies given in reply to MRC AHCJ. (e.g., AHCKB10.0\$\$B50.0\$\$B75.0\$\$B75.0\$\$B75.0\$\$

See Appendix C, Table 2, for typical recording points.

A\*,B\*,C\*D\*,E\*,G\*,H\*,J\*

#### AFSV B AVERAGE LIFE RATING IN HOURS

Definition: THE NUMERIC VALUE INDICATING THE AVERAGE LIFE EXPENCTANCY FOR WHICH THE ITEM IS RATED, EXPRESSED IN HOURS.

Reply Instructions: Enter the numeric value. (e.g., AFSVB96.0\*)

A\*,B\*,C\*D\*,E\*,F\*,J\*

#### AHBN A INPUT TERMINAL MANUFACTURER CODE

Definition: THE IDENTIFYING NUMERIC CODE OF THE ORIGINATOR THAT CONTROLS OR MANUFACTURES THE INPUT TERMINAL.

Reply Instructions: Enter the manufactures 5-position Commercial and Government Entity (CAGE) Code selected from Cataloging Handbook H4-1. (e.g., AHBNA81349\*)

A\*,B\*,C\*D\*,E\*,F\*,J\*

### AHBP A INPUT TERMINAL IDENTIFICATION

Definition: THE SPECIFICATION, STANDARD, OR MANUFACTURERS IDENTIFICATION NUMBER OR SYMBOL USED TO IDENTIFY THE INPUT TERMINAL.

Reply Instructions: Enter the manufacturers identifying reference number.

(e.g., AHBPAMS3102C-8S-1P\*)

A\*,B\*,C\*D\*,E\*,F\*,H\*,J\*

### AHBS A OUTPUT TERMINAL MANUFACTURER CODE

Definition: THE IDENTIFYING NUMERIC CODE OF THE ORIGINATOR THAT CONTROLS OR MANUFACTURERS THE OUTPUT TERMINAL.

Reply Instructions: Enter the manufacturers 5-position Commercial and Government Entity (CAGE) Code from Cataloging Handbook H4-1. (e.g., AHBSA96906\*)

A\*,B\*,C\*D\*,E\*,F\*,H\*,J\*

### AHBT A OUTPUT TERMINAL IDENTIFICATION

Definition: THE SPECIFICATION, STANDARD, OR MANUFACTURERS IDENTIFICATION NUMBER OR SYMBOL USED TO IDENTIFY THE OUTPUT TERMINAL.

Reply Instructions: Enter the manufacturers identifying reference number.

(e.g., AHBTAMS3102-10SL-3P\*)

B\*,D\*,E\*,G\*,H\*,J\*

### CBME J CUBIC MEASURE

Definition: A MEASUREMENT OF VOLUME TAKEN BY MULTIPLYING THE LENGTH BY THE WIDTH BY THE HEIGHT OF AN ITEM AND RENDERED IN CUBIC UNITS.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., CBMEJCN2.0\*)

REPLY CODE	REPLY (AN76)
CC	CUBIC CENTIMETERS
CD	CUBIC DECIMETERS
CF	CUBIC FEET
CN	CUBIC INCHES
CM	CUBIC METERS

ALL\*

### PKWT J UNPACKAGED UNIT WEIGHT

Definition: THE MEASURED WEIGHT OF AN ITEM UNENCUMBERED BY PACKAGING OR PACKING MATERIAL.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., PKWTJOZ10.000\*; PKWTJKG8.1\*)

See Appendix C, Table 6, for decimal fractional parts of a pound.

REPLY CODE	REPLY (AN75)
GM	GRAMS
KG	KILOGRAMS
OZ	OUNCES
LB	POUNDS

A\*,C\*,E\*,F\*,H\*,J\*

### CRDC J MAXIMUM DIELECTRIC WITHSTANDING DC VOLTAGE

Definition: THE MAXIMUM DIRECT CURRENT VOLTAGE THAT THE INSULATING MATERIAL(S) OF THE ITEM WILL WITHSTAND WITHOUT RESULTING IN DISRUPTIVE DISCHARGE OR DETERIORATION.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 4, followed by the applicable Reply Code from the table below, and the numeric value. (e.g., CRDCJKC400.0\*; CRDCJVB800.0\$\$JVC600.0\*)

If source data does not specify either Altitude or Sea Level, enter Reply Code B.

REPLY CODE	REPLY (AD86)
C	AT ALTITUDE
В	AT SEA LEVEL

A\*,C\*D\*,E\*,F\*,G\*,H\*,J\*

### CQDZ J MAXIMUM DIELECTRIC WITHSTANDING AC RMS VOLTAGE

Definition: THE MAXIMUM ALTERNATING CURRENT (AC) ROOT MEAN SQUARE VOLTAGE THAT THE INSULATING MATERIAL(S) OF THE ITEM WILL WITHSTAND WITHOUT RESULTING IN DISRUPTIVE DISCHARGE OR DETERIORATION.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 4, followed by the applicable Reply Code from the table below, and the numeric value. (e.g., CQDZJKC500.0\*; CQDZJVB1000.0\$\$JVC700.0\*)

If source data does not specify either Altitude or Sea Level, enter Reply Code B.

REPLY CODE	<u>REPLY (AD86)</u>
C	AT ALTITUDE
В	AT SEA LEVEL

A\*,B\*,C\*D\*,E\*,G\*,H\*,J\*

#### AECR F VIBRATION RESISTANCE RANGE IN HERTZ

Definition: THE LOW AND HIGH FREQUENCIES OF VIBRATORY MOTION AND MECHANICAL STRESSES BETWEEN WHICH THE ITEM IS TESTED, OR OPERATED, WITHOUT DELETERIOUS EFFECT ON ITS ELECTRICAL OR MECHANICAL CHARACTERISTICS, EXPRESSED IN HERTZ.

Reply Instructions: Enter the numeric values, separated by a slash, of the low and high frequencies of physical vibration which the item can withstand. Precede each value with the letter P. (e.g., AECRFP10.0/P55.0\*; AECRFP10.0/P2000.0\*)

ALL\*

#### AFGA J OPERATING TEMP RANGE

Definition: THE MINIMUM AND MAXIMUM LIMITS OF TEMPERATURE AT WHICH THE ITEM IS RATED FOR OPERATION.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value, separated by a slash. Precede Minus values with the letter M and Positive values with the letter P. (e.g., AFGAJCM65.0/P85.0\*)

REPLY CODE REPLY (AB36)
C DEG CELSIUS
F DEG FAHRENHEIT

ALL\*

### PRMT D PRECIOUS MATERIAL

Definition: IDENTIFICATION OF THE PRECIOUS MATERIAL CONTAINED IN THE ITEM.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 12. (e.g., PRMTDAGA000\*; PRMTDAUA000\$\$DAGA000\*)

A\*.B\*.D\*.F\*G\*.H\*.J\*

#### PMWT J PRECIOUS MATERIAL AND WEIGHT

Definition: AN INDICATION OF THE PRECIOUS MATERIAL CONTAINED IN THE ITEM, AND THE AMOUNT PER A MEASUREMENT SCALE.

Reply Instructions: Enter the applicable Reply Codes from <u>Appendix A</u>, Table 12, and the table below, followed by the numeric value. Enter multiple replies in Appendix A, Table 12 sequence. (e.g., PMWTJPTA000R0.780\*; PMWTJAUA000F0.500\$\$JAGA000R0.780\*)

REPLY CODE	REPLY (AG14)
E	GRAINS, TROY
R	GRAMS
F	OUNCES, TROY

ALL\*

### PMLC J PRECIOUS MATERIAL AND LOCATION

Definition: AN INDICATION OF THE PRECIOUS MATERIAL AND ITS LOCATION IN THE ITEM.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 12, followed by the location in clear text. (e.g., PMLCJAUA000TERMINALS\*; PMLCJAUA000TERMINALS\$\$JAGA000INTERNAL SURFACES\*; PMLCJAGA000TERMINALS\$JAUA000INTERNAL SURFACES\*)

A\*,B\*,C\*,D\*,F\*,G\*,H\*,J\*

### SUPP G SUPPLEMENTARY FEATURES

Definition: CHARACTERISTICS OR QUALITIES OF AN ITEM, NOT COVERED IN ANY OTHER REQUIREMENT, WHICH ARE CONSIDERED ESSENTIAL INFORMATION FOR ONE OR MORE FUNCTIONS EXCLUDING NSN ASSIGNMENT.

Reply Instructions: Enter the reply in clear text. (e.g., SUPPGMAY INCL HOLE IN UPPER SUPPORT FOR MTG DURING SHIPMENT\*)

B\*,D\*,E\*,F\*,G\*,H\*,J\*

### NTRD A ENTRY DATE

Definition: INDICATE THE DATE THE ITEM ENTERED INTO MIL-HDBK-300.

Reply Instructions: Enter the date structured in three hyphenated 2 position segments to indicate the last 2 digits of the calendar year, month, and day.

(e.g., NTRDA80-05-28\*)

NOTE FOR MRCS FCLS, FTLD, TMDN, RTSE, AND RDAL: REPLY TO THESE MRCS ONLY IF A REPLY IS ENTERED FOR MRC NTRD.

A\*,B\*,D\*,E\*,F\*,G\*,H\*,J\* (See Note Above)

FCLS A FUNCTIONAL CLASSIFICATION

Definition: THE ALPHA-NUMERIC DESIGNATION THAT IDENTIFIES THE CLASSIFICATION OF THE ITEM ACCORDING TO THE CATEGORY OF FUNCTIONS PERFORMED.

Reply Instructions: Enter the reply from the applicable document.

(e.g., FCLSAHH-1.5\*)

A\*,B\*,C\*,E\*,F\*,G\*,H\*,J\* (See Note Preceding MRC FCLS)

FTLD G FUNCTIONAL DESCRIPTION

Definition: DESCRIBES THE CAPABILITIES, INTENDED USE, AND/OR PURPOSE FOR WHICH THE ITEM IS PROVIDED.

Reply Instructions: Enter description of function as concisely as possible. (e.g., FTLDGUSED TO INSTALL/REMOVE ENGINE NACELLE\*)

B\*,D\*,E\*,F\*,G\*,H\*,J\* (See Note Preceding MRC FCLS)

TMDN A TYPE/MODEL DESIGNATION

Definition: THE ALPHA-NUMERIC-ALPHA DESIGNATION USED TO IDENTIFY THE TYPE AND/OR MODEL OF THE BASIC ITEM.

Reply Instructions: Enter the appropriate designation data.

(e.g., TMDNAMSV-615/M\*)

A\*,B,C\*,D\*,E\*,F,G\*,H,J (See Note Preceding MRC FCLS)

RTSE G RELATIONSHIP TO SIMILAR EQUIPMENT

Definition: INDICATES THE RELATIONSHIP, SUCH AS CONSTRUCTION, CAPABILITIES, AND THE LIKE, OF THE ITEM TO A SIMILAR ITEM.

Reply Instructions: Enter concise statement for similar item including name and identifying data.

(e.g., RTSEGSIMILAR TO LOCKHEED OVERWING ENGINE HOIST P/N 61521-58\*)

A\*,B\*,D\*,F\*,G\*,H\*,J\* (See Note Preceding MRC FCLS)

RDAL G REFERENCE DATA AND LITERATURE

Definition: LITERATURE AND REFERENCES AVAILABLE FOR INFORMATION PERTAINING TO THE ITEM.

Reply Instructions: Enter data appropriate and in a concise manner to identify informational references covering the item.

(e.g., RDALGNAAVAIROIA/VFK58 A-2.2.9\*)

B\*,D\*,F\*,G\*,H\*,J\*

### ZZZP J PURCHASE DESCRIPTION IDENTIFICATION

Definition: THE CONTROLLING ACTIVITY AND IDENTIFICATION OF A DOCUMENT USED IN LIEU OF A SPECIFICATION IN THE PROCUREMENT OF AN ITEM OF SUPPLY.

Reply Instructions: Enter the 5-position Commercial and Government Entity (CAGE) Code, followed by a dash and the identifying number of the document.

(e.g., ZZZPJ81337-30624A\*)

NOTE FOR MRC CQRG: USE ONLY BASIC MATERIALS LISTED IN TABLE.

ALL\* (See Note Above)

CORG D BODY MATERIAL

Definition: THE CHEMICAL COMPOUND OR MECHANICAL MIXTURE PROPERTIES OF WHICH THE BODY IS FABRICATED.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., CQRGDALA000\*; CQRGDCLD000\$DPCA000\*)

REPLY CODE	REPLY (MA01)
ALA000	ALUMINUM
CLD000	CERAMIC
GSA000	GLASS
MTC000	METAL
PCA000	PLASTIC

A\*,C\*,D\*,E\*,F\*,G\*,J\*

CRST D BODY SURFACE TREATMENT

Definition: THE METALLIC, NONMETALLIC, AND/OR CHEMICAL PROPERTIES WITH WHICH THE BODY IS PLATED, DIPPED AND/OR COATED. THE TREATMENT IS DESIGNED TO PROTECT THE BODY SURFACE(S) AND CANNOT BE WIPED OFF.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g.,

CRSTDAUA000\*; CRSTDCDR000\$DSNA000\*)

REPLY CODE	REPLY (SF01)
CDA000	CADMIUM
AUA000	GOLD
NLA000	NICKEL
RHA000	RHODIUM
AGA000	SILVER
SNA000	TIN
ZNA000	ZINC

A\*,C\*,D\*,E\*,H\*,J\*

### ZZZV G FSC APPLICATION DATA

Definition: THE JUSTIFICATION FOR THE ASSIGNMENT OF A FEDERAL SUPPLY CLASS (FSC) TO AN ITEM BASED ON THE CLASSIFICATION OF THE NEXT HIGHER CLASSIFIABLE ASSEMBLY.

Reply Instructions: Enter the name of the next higher classifiable assembly in clear text. (e.g., ZZZVGFUEL SYSTEM, GASOLINE ENGINE, NONAIRCRAFT\*)

ALL\*

#### AGAV G END ITEM IDENTIFICATION

Definition: THE NATIONAL STOCK NUMBER OR THE IDENTIFICATION INFORMATION OF THE END EQUIPMENT FOR WHICH THE ITEM IS A PART.

Reply Instructions: Enter the reply in clear text.

(e.g., AGAVG3930-00-000-0000\*;

AGAVGFORKLIFT TRUCK, SMITH CORPORATION, MODEL 12, TYPE A\*)

### **Reply Tables**

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Table 1 - FUNCTIONAL SEQUENCE (AF15) FUNCTIONAL SEQUENCE (AF15)

	BAND PASS	BAND SUPPRESSION	HIGH PASS	LOW PASS	RADIO INTERFERENCE	(BLANK)
SINGLE 1ST 2ND 3RD 4TH 5TH 6TH (BLANK)	AA AB AC AD AE AF AG	CA CB CC CD CE CF CG	EA EB EC ED EE EF EG	HA HB HC HD HE HF	KB KC KD KE KF KG	ZZ
,)						

The reply code for sequencing is found at the intersection of the horizontal and vertical coordinates. Use Reply Code ZZ only when describing a single function-single section filtler (e.g., BANDPASS), or any of the single item names covered by this FIIG. Use single, Reply Codes AA, CA, EA, and HA when describing single section multi-function filters (e.g., BANDPASS-BAND SUPPRESSION) or any combination of the item names that appear across the top of Table 1. The remaining codes 1st through 6th are used when describing multi-function filters. (e.g., 1st BANDPASS, 2nd BANDPASS, 1st BAND SUPPRESSION).

# Table 2 - FREQUENCY UNIT OF MEASURE FREQUENCY UNIT OF MEASURE

REPLY CODE	REPLY (AE06)
G	GIGAHERTZ
E	HERTZ
K	KILOHERTZ
M	MEGAHERTZ

# Table 3 - RESISTANCE UNIT OF MEASURE RESISTANCE UNIT OF MEASURE

REPLY CODE	REPLY (AA57)
K	KILOHMS
M	MEGOHMS
Q	OHMS

# Table 4 - VOLTAGE UNIT OF MEASURE VOLTAGE UNIT OF MEASURE

REPLY CODE	REPLY (AB63)
K	KILOVOLTS
U	<b>MICROVOLTS</b>
L	<b>MILLIVOLTS</b>
V	VOLTS

# Table 5 - SCREW THREAD SERIES DESIGNATOR SCREW THREAD SERIES DESIGNATOR

REPLY CODE	REPLY (AH06)	APPLICABILE SUBREQUIREMENTS
SM	ISO M	CQJX, CQQR OR CTTC
SS	ISO S	CQJX, CQQR OR CTTC
EM	M (METRIC)	CQJX, CQQR, CTTC
MJ	MJ (METRIC J) SERIES	CQJX, CQQR, CTTC
UN	UN	CQJX
NC	UNC	CQJX
NE	UNEF	CQJX
NF	UNF	CQJX
NJ	UNJ	CQJX
JC	UNJC	CQJX
JE	UNJEF	CQJX
JF	UNJF	CQJX
JS	UNJS	CQJX
NM	UNM	CQJX, CQQR
NS	UNS	CQJX

# Table 6 - MOUNTING FACILITY TYPE MOUNTING FACILITY TYPE

REPLY CODE	REPLY (AM39)
BDH	ADHESIVE
ABC	BRACKET
AMA	CAPTIVE SCREWS
ABH	CLAMP
AFQ	CONNECTOR
ACR	FLANGE(WAVEGUIDE)
AAD	PIN
ABP	PLUG-IN
ABY	SLOT
AAE	STUD
ACC	TAB
ACD	TERMINAL
AFA	THREADED BUSHING
AHF	THREADED HOLE
AET	THREADED STUD
BTW	UNTHREADED BUSHING
ACQ	UNTHREADED HOLE

# Table 7 - NONDEFINITIVE SPEC/STD DATA NONDEFINITIVE SPEC/STD DATA

REPLY CODE AL AN AP AC AR AS AB BX CY CA CT CL CE CR CCC CN	ALLOY ANNEX APPENDIX APPLICABILITY CLASS ARRANGEMENT ASSEMBLY ASSORTMENT BOX CAPACITY CASE CATEGORY CLASS CODE COLOR COMBINATION CODE
CR	COLOR
CC CN CP	COMPONENT COMPOSITION
CM CD CS	COMPOUND CONDITION CONSTRUCTION
DE DG	DESIGNATOR

REPLY CODE	REPLY (AD08)
DW	DRAWING NUMBER
EG	EDGE
EN	END
FY	FAMILY
FG	FIGURE
FN	FINISH
FM	FORM
FA	FORMULA
GR	GRADE
GP	GROUP
NS	INSERT
TM	ITEM
KD	KIND
KT	KIT
LG	LENGTH
LT	LIMIT
MK	MARK
ML	MATERIAL
MH	MESH
ME	METHOD
MD	MODEL
MT	MOUNTING
NR	NUMBER
PT	PART
PN	PATTERN
PC	PHYSICAL CONDITION
PS	PIECE
PL	PLAN
PR	POINT
QA	QUALITY
RN	RANGE
RT	RATING
RF	REFERENCE NUMBER
SC	SCHEDULE
SB	SECTION
SL	SELECTION
SE	SERIES
SV	SERVICE
SX	SET
SA	SHADE
SH	SHAPE
SG	SHEET
SZ	SIZE
PZ	SPECIES
SQ	SPECIFICATION SHEET
SD	SPEED
ST	STYLE
SS	SUBCLASS
~~	

REPLY CODE	REPLY (AD08)
SF	SUBFORM
SP	SUBTYPE
SN	SURFACE CONDITION
SY	SYMBOL
SM	SYSTEM
TB	TABLE
TN	TANNAGE
TP	TEMPER
TX	TEXTURE
TK	THICKNESS
TT	TREATMENT
TR	TRIM
TY	TYPE
YN	UNIT
VA	VARIETY
WT	WEIGHT
WD	WIDTH

# Table 8 - TERMINAL FUNCTION TERMINAL FUNCTION

REPLY CODE	REPLY (AC00)
N	GROUND
В	INPUT
P	INPUT-GROUND
M	INPUT-OUTPUT
Q	INPUT-OUTPUT/GROUND
F	OUTPUT
R	OUTPUT-GROUND
S	VOLTAGE

# Table 9 - FEATURES PROVIDED FEATURES PROVIDED

REPLY CODE	REPLY (AN47)
CYW	ACTIVE
CYX	BESSEL RESPONSE
CYY	BUTTERWORTH RESPONSE
CYZ	CABLE
BGJ	CABLE ASSEMBLY
CZA	CHEBYSCHEV RESPONSE
AZF	CORROSION RESISTANT
CLZ	DUMMY TERMINAL
BSZ	ELECTROSTATIC SENSITIVE
BDT	ELECTROSTATIC SHIELD
CZB	ELLIPTICAL RESPONSE

REPLY CODE REPLY (AN47)

CZC FUNGUS RESISTANT CZD GAUSSIAN RESPONSE DAL HEAT RESISTANT

AES HEAT SET

AAT HUMIDITY PROOF

CZE KNOB

AAL MAGNETIC CASE

CYE MOISTURE RESISTANT ARA MOUNTING BRACKET

AFZ NUT AYX RING

ABL SALT WATER RESISTANT

CZF SHOCK RESISTANT

CZG TIME DELAY CGC TUNABLE BEQ WASHER

### Table 10 - TUNING METHOD

### **TUNING METHOD**

# REPLY CODE REPLY (AL41) AGN COUNTER DIAL

AGP DIGITAL

AGQ LOGIC PROGRAMMABLE

AGR PLUNGER

AGS RESISTIVE TUNABLE

ADM SCREW

AGU SCREWDRIVER SHAFT AGV SWITCH PROGRAMMABLE

AGW VOLTAGE TUNABLE

AGX YTTRIUM-IRON GARNET CRYSTAL (YIG)

### Table 11 - TERMINAL TYPE

### TERMINAL TYPE

### REPLY CODE REPLY (AN89)

ACX CIRCULAR FLANGE
ACT COMPONENT SOCKET
ACN CONNECTOR, PLUG

AAF CONNECTOR, RECEPTACLE AJT ELECTRON TUBE BASE

ACJ FRICTION W/GROUNDING STRAP AND PIN ACL FRICTION W/GROUNDING STRAP W/O PIN

Octal Plug-in (use Reply Code AAT)

AAM PIN

Plug, Coaxial (use Reply Code ACN)

REPLY CODE	REPLY (AN89)
ACR	PRINTED CIRCUIT
ADA	QUICK DISCONNECT, FEMALE
ACZ	QUICK DISCONNECT, MALE
	Receptacle, Coaxial (use Reply Code AAF)
ACW	RECTANGULAR FLANGE
ABQ	SCREW
AAS	SOLDER STUD
AAT	STANDARD TUBE BASE
ABB	TAB, SOLDER LUG
ABX	TAB W/SCREW
ABC	THREADED HOLE
ABD	THREADED STUD
ACB	TURRET
ACM	WIRE HOOK
ACC	WIRE LEAD
ACD	WIRE LOOP

# Table 12 - PRECIOUS MATERIAL PRECIOUS MATERIAL

REPLY CODE	REPLY (MA01)
AUA000	GOLD
IRA000	IRIDIUM
AZA000	OSMIUM
PDA000	PALLADIUM
PTA000	PLATINUM
RHA000	RHODIUM
RTA000	RUTHENIUM
AGA000	SILVER

## **Reference Drawing Groups**

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REFERENCE DRAWING GROUP B Tables	57
REFERENCE DRAWING GROUP B	58

### REFERENCE DRAWING GROUP A

### **TERMINAL TYPES**

(Reference Only) CONNECTOR, CONNECTOR, RECEPTACLE **PLUG** CIRCULAR FLANGE COMPONENT SOCKET ELECTRON TUBE BASE RECTANGULAR FLANGE PRINTED CIRCUIT PIN QUICK DISCONNECT QUICK DISCONNECT **SCREW FEMALE** MALE **SOLDER STUD THREADED** W/ SCREW THREADED HOLE TAB, SOLDER LUG **TURRET** STUD **WIRE HOOK** WIRE LOOP WIRE LEAD

# REFERENCE DRAWING GROUP B Tables BODY STYLES

### INDEX OF MASTER REQUIREMENT CODES

MRCS ABHP, ABKW, and ABMK include rigid or semirigid terminals, length of cables terminated with connectors, mounting plates, mounting flanges, and mounting bushings.

MRCS ADAQ, ADAU, and ADAT excludes terminals, cables, mounting plates, mounting flanges, and mounting bushings.

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ABHPJAA1.000\*; ABHPJLA25.4\*; ABHPJAB2.495\$\$JAC2.503\*)

REPLY CODE	REPLY (AA05)
A	INCHES
L	MILLIMETERS
REPLY CODE	REPLY (AC20)
A	NOMINAL

В

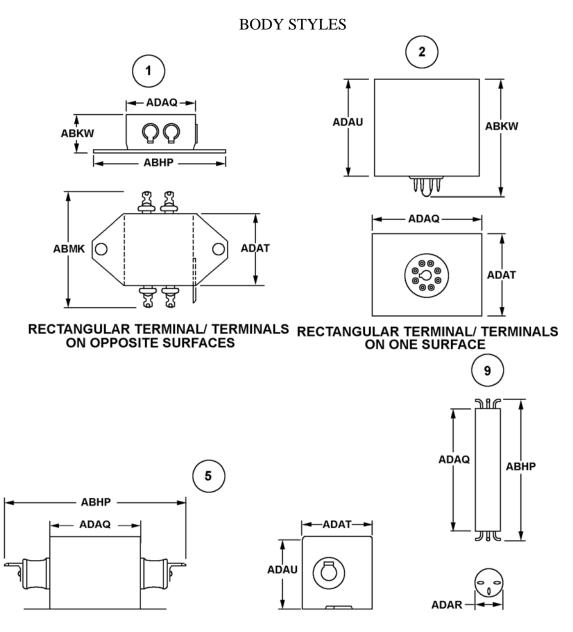
C

MRC	Mode Code	Name of Dimension
ABHP	J	OVERALL LENGTH
ABKW	J	OVERALL HEIGHT
ABMK	J	OVERALL WIDTH
ADAQ	J	BODY LENGTH
ADAR	J	BODY OUTSIDE DIAMETER
ADAT	J	BODY WIDTH
ADAU	J	BODY HEIGHT
ADJT	J	INSIDE WIDTH
AFMQ	J	INSIDE HEIGHT
AHBX	J	DISTANCE BETWEEN MOUNTING SURFACE AND LOWER END
ASDB	J	WIDTH ACROSS FLATS

**MINIMUM** 

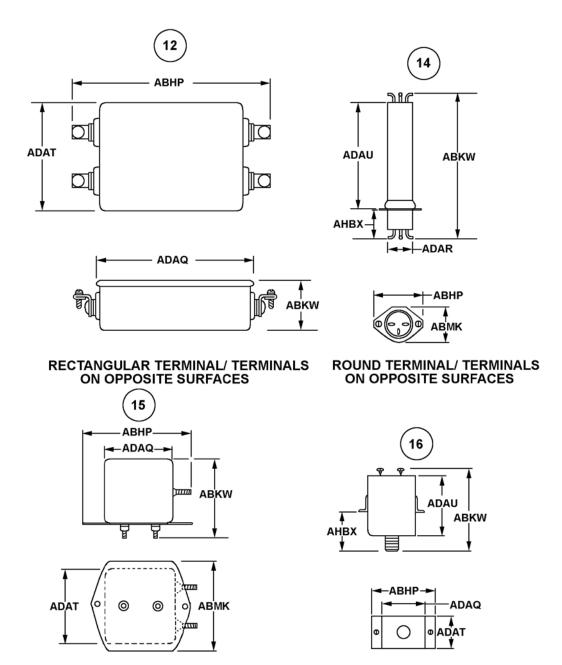
MAXIMUM

### REFERENCE DRAWING GROUP B

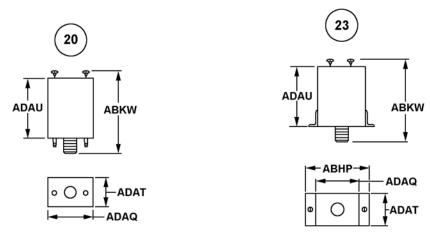


RECTANGULAR TERMINAL/ TERMINALS ON OPPOSITE SURFACES

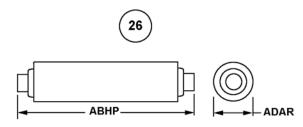
ROUND TERMINAL/ TERMINALS ON OPPOSITE SURFACES



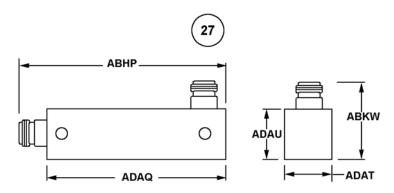
RECTANGULAR TERMINAL/ TERMINALS RECTANGULAR TERMINAL/ TERMINALS ON ADJACENT SURFACES ON OPPOSITE SURFACES



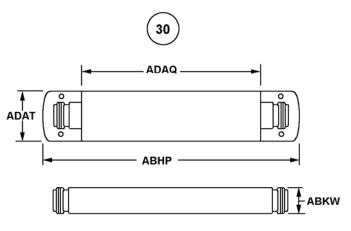
# RECTANGULAR TERMINAL/ TERMINALS RECTANGULAR TERMINAL/ TERMINALS ON OPPOSITE SURFACES ON OPPOSITE SURFACES



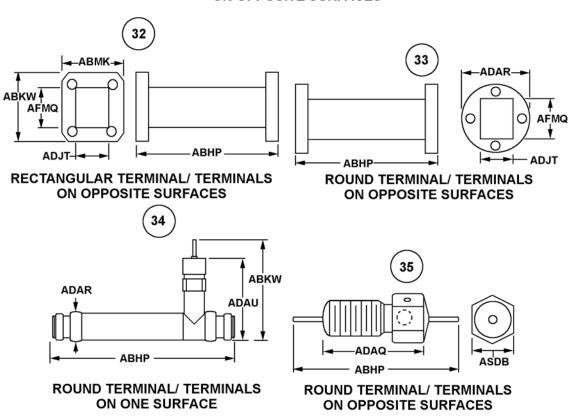
## ROUND TERMINAL/ TERMINALS ON OPPOSITE SURFACES

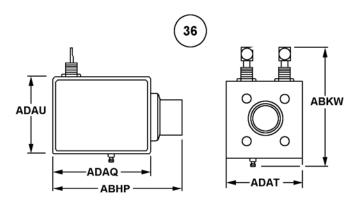


RECTANGULAR TERMINAL/ TERMINALS ON TWO SURFACES

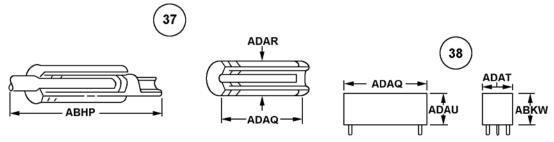


RECTANGULAR TERMINAL/ TERMINALS ON OPPOSITE SURFACES



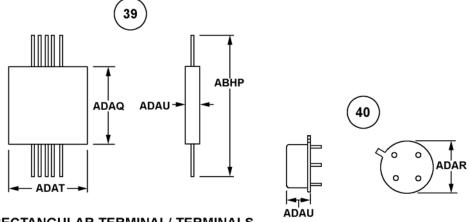


## RECTANGULAR TERMINAL/ TERMINALS ON THREE SURFACES



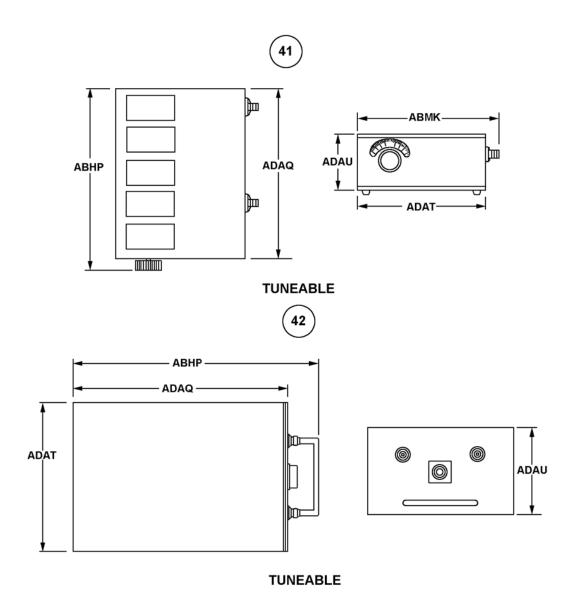
# ROUND TERMINAL/ TERMINALS ON OPPOSITE SURFACES

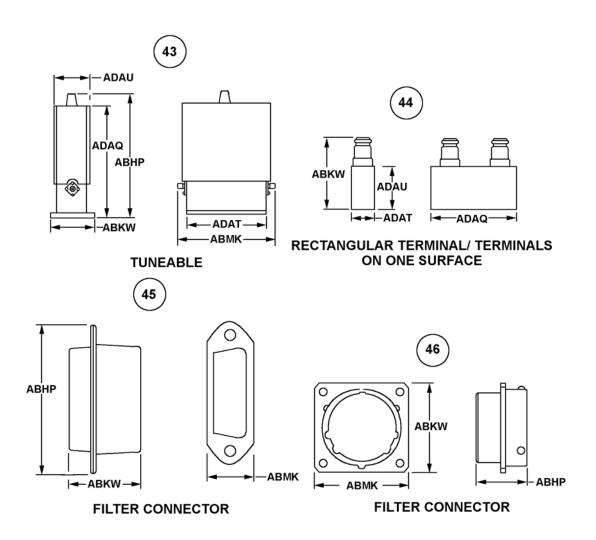
RECTANGULAR TERMINAL/ TERMINALS ON ONE SURFACE



RECTANGULAR TERMINAL/ TERMINALS ON OPPOSITE SURFACES

ROUND TERMINAL/ TERMINALS ON ONE SURFACE





### **Technical Data Tables**

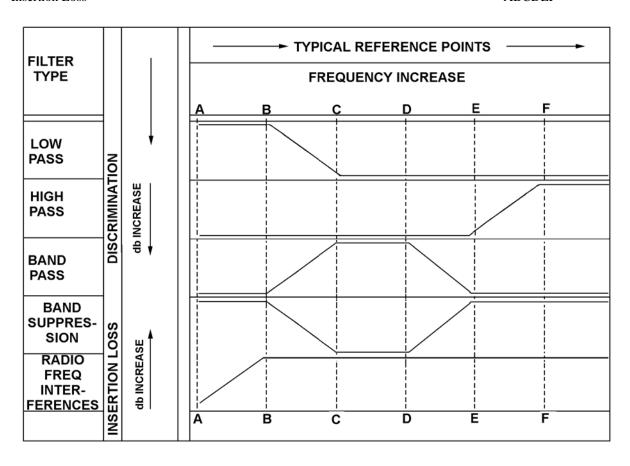
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### STANDARD FRACTION TO DECIMAL CONVERSION CHART

4ths	8ths	<u>16ths</u>	32nds	64ths	<u>To 3</u>	<u>To 4</u>	4ths	8ths	<u>16ths</u>	32nds	64ths	<u>To 3</u>	<u>To 4</u>
				1/64	.016	.0156					33/64	.516	.5156
			1/32		.031	.0312				17/32		.531	.5312
				3/64	.047	.0469					35/64	.547	.5469
		1/16			.062	.0625			9/16			.562	.5625
				5/64	.078	.0781					37/64	.578	.5781
			3/32		.094	.0938				19/32		.594	.5938
				7/64	.109	.1094					39/64	.609	.6094
	1/8				.125	.1250		5/8				.625	.6250
				9/64	.141	.1406					41/64	.641	.6406
			5/32		.156	.1562				21/32		.656	.6562
				11/64	.172	.1719					43/64	.672	.6719
		3/16			.188	.1875			11/16			.688	.6875
				13/64	.203	.2031					45/64	.703	.7031
			7/32		.219	.2188				23/32		.719	.7188
				15/64	.234	.2344					47/64	.734	.7344
1/4					.250	.2500	3/4					.750	.7500
				17/64	.266	.2656					49/64	.766	.7656
			9/32		.281	.2812				25/32		.781	.7812
				19/64	.297	.2969					51/64	.797	.7969
		5/16			.312	.3125			13/16			.812	.8125
				21/64	.328	.3281					53/64	.828	.8281
			11/32		.344	.3438				27/32		.844	.8438
				23/64	.359	.3594					55/64	.859	.8594
	3/8				.375	.3750		7/8				.875	.8750
				25/64	.391	.3906					57/64	.891	.8906
			13/32		.406	.4062				29/32		.906	.9062
				27/64	.422	.4219					59/64	.922	.9219
		7/16			.438	.4375			15/16			.938	.9375
				29/64	.453	.4531					61/64	.953	.9531
			15/32		.469	.4688				31/32		.969	.9688
				31/64	.484	.4844					63/64	.984	.9844
					.500	.5000						1.000	1.0000

# REFERENCE POINTS FOR RECORDING REQUIREMENTS FILTER TYPE

Requirement	LowHighBand PassPassPass		Band Pass	Band Suppression	Radio Frequency Interference
Reference Freq	В	E	Mid Point C	Mid Point C to	
			to D	D	
Insertion Loss at Reference	В	E	Mid Point C	Mid Point C to	
Freq			to D	D	
Band Width Freq	A and B	E and F	C and D	C and D	
Specified Freq of	ABCF	ADEF	BCDE	BCDE	
Discrimination					
Discrimination at Specified	ABCF	ADEF	BCDE	BCDE	
Freq					
Frequency					ABCDEF
Insertion Loss					ABCDEF



### METRIC CONVERSION CHART

ORIG L VA		<u>DES</u>	<u>IRED</u>	VALU	<u>JE</u>												
Pref ix		Ter a	<u>Gi</u> ga	Me ga	My ria	<u>Kil</u> <u>o</u>	Hec to	<u>De</u> <u>ke</u>	*U nit	<u>De</u> <u>ci</u>	<u>Ce</u> <u>nti</u>	Mil <u>li</u>	Mic ro	<u>Na</u> <u>no</u>	<u>Pic</u> <u>o</u>	Fem to	<u>Att</u> <u>o</u>
	<u>Pow</u> <u>er</u> <u>of</u> <u>10</u>	10 12	10 9	<u>106</u>	<u>104</u>	10 3	<u>102</u>	<u>101</u>	<u>100</u>	<u>10-</u> <u>1</u>	10- 2	<u>10-</u> <u>3</u>	<u>10-</u> <u>6</u>	<u>10-</u> <u>9</u>	12- 12	10- 15	<u>10-</u> <u>18</u>
Ter	101		3 a	6 a	8 ad	9 a	10 a	11	12	13	14	15	18 a	21	24	27 a	30
a	2		d	d		d	d	ad	ad	ad	ad	ad	d	ad	ad	d	ad
Gig	109	aj		3 a	5 ad	6 a	7 ad	8 a	9 a	10	11	12	15 a	18	21	24 a	27
a		3		d		d		d	d	ad	ad	ad	d	ad	ad	d	ad
Me	106	aj	aj		2 ad	3 a	4 ad	5 a	6 a	7 a	8 a	9 a	12 a	15	18	21 a	24
ga		6	3			d		d	d	d	d	d	d	ad	ad	d	ad
Myr	104	aj	aj	aj2		1 a	2 ad	3 a	4 a	5 a	6 a	7 a	10 a	13	16	19 a	22
ia		8	5			d		d	d	d	d	d	d	ad	ad	d	ad
Kilo	103	aj	aj	aj3	aj1		1 ad	2 a	3 a	4 a	5 a	6 a	9 ad	12	15	18 a	21
		9	6					d	d	d	d	d		ad	ad	d	ad
Hec	102	aj	aj	aj4	aj2	aj		1 a	2 a	3 a	4 a	5 a	8 ad	11	14	17 a	20
to		10	7			1		d	d	d	d	d		ad	ad	d	ad
Dek	101	aj	aj	aj5	aj3	aj	aj1		1 a	2 a	3 a	4 a	7 ad	10	13	16 a	19
a		11	8			2			d	d	d	d		ad	ad	d	ad
*Un	100	aj	aj	aj6	aj4	aj	aj2	aj1		1 a	2 a	3 a	6 ad	9 a	12	15 a	18
it		12	9			3				d	d	d		d	ad	d	ad
Dec	10-	aj	aj	aj7	aj5	aj	aj3	aj2	aj1		1 a	2 a	5 ad	8 a	11	14 a	17
i	1	13	10			4					d	d		d	ad	d	ad
Cen	10-	aj	aj	aj8	aj6	aj	aj4	aj3	aj2	aj1		1 a	4 ad	7 a	10	13 a	16
ti	2	14	11			5						d		d	ad	d	ad
Mill	10-	aj	aj	aj9	aj7	aj	aj5	aj4	aj3	aj2	aj1		3 ad	6 a	9 a	12 a	15
i	3	15	12			6								d	d	d	ad
Mic	10-	aj	aj	aj1	aj1	aj	aj8	aj7	aj6	aj5	aj4	aj3		3 a	6 a	9 ad	12
ro	6	18	15	2	0	9								d	d		ad
Nan	10-	aj	aj	aj1	aj1	aj	aj1	aj1	aj9	aj8	aj7	aj6	aj3		3 a	6 ad	9 a
0	9	21	18	5	3	12	1	0							d		d
Pico	10-	aj	aj	aj1	aj1	aj	aj1	aj1	aj1	aj1	aj1	aj9	aj6	aj3		3 ad	6 a
	12	24	21	8	6	15	4	3	2	1	0						d
Fem	10-	aj	aj	aj2	aj1	aj	aj1	aj1	aj1	aj1	aj1	aj1	aj9	aj6	aj3		3 a
to	15	27	24	1	9	18	7	6	5	4	3	2		-	-		d
Atto	10-	aj	aj	aj2	aj2	aj	aj2	aj1	aj1	aj1	aj1	aj1	aj1	aj9	aj6	aj3	
	18	30	27	4	2	21	0	9	8	7	6	5	2	-	-		

\* The notation "unit" represents the basic unit of measurement, such as amperes, farads, grams, hertz, meters, ohms, volts, watts, etc.

To convert from one notation (metric or a power of ten) to another, locate the original or given value in the left-hand column. Follow this line horizontally to the vertical column headed by the desired notation. The figure and arrow at the intersection of these two columns indicates the direction and number of places the decimal point is to be moved (e.g., to convert 25,000 kilohertz to megahertz, at the intersection of the horizontal column for kilo and the vertical column for mega find the figure and directional arrow |aj3. Thus, shifting the decimal in 25,000 kilohertz 3 places to the left results in the value of 25 megahertz).

#### THREAD SIZE/SERIES

Nominal Size and Threads Per Inch	Thread Series
0-80 OR .060-80	UNF
1-64 OR .073-64	UNC
1-72 OR .073-72	UNF
2-56 OR .086-56	UNC
2-64 OR .086-64	UNF
3-48 OR .099-48	UNC
3-56 OR .099-56	UNF
4-40 OR .112-40	UNC
4-48 OR .112-48	UNF
5-40 OR .125-40	UNC
5-44 OR .125-44	UNF
6-32 OR .138-32	UNC
6-40 OR .138-40	UNF
8-32 OR .164-32	UNC
8-36 OR .164-36	UNF
10-24 OR .190-24	UNC
10-28 OR .190-28	UNS
10-32 OR .190-32	UNF
10-36 OR .190-36	UNS
10-40 OR .190-40	UNS
10-48 OR .190-48	UNS
10-56 OR .190-56	UNS
12-24 OR .216-24	UNC
12-28 OR .216-28	UNF
12-32 OR .216-32	UNEF

12-40 OR .216-40 UN 12-48 OR .216-48 UN 12-56 OR .216-56 UN 1/4-20 OR .250-20 UN 1/4-24 OR .250-24 UN 1/4-27 OR .250-27 UN 1/4-28 OR .250-28 UN 1/4-32 OR .250-32 UN 1/4-36 OR .250-36 UN 1/4-40 OR .250-40 UN 1/4-48 OR .250-48 UN 1/4-56 OR .250-56 UN 5/16-18 OR .3125-18 UN 5/16-20 OR .3125-20 UN 5/16-24 OR .3125-24 UN 5/16-27 OR .3125-27 UN 5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .375-16 UN 3/8-18 OR .375-16 UN 3/8-20 OR .375-27 UN 3/8-20 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-30 OR .375-32 UN 3/8-40 OR .375-36 UN 3/8-40 OR .375-40 UN 3/90-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 3/90-27 UN 7/16-20 OR .4375-20 UN 7/16-20 OR .4375-30 UN	
12-48 OR .216-48 UN 12-56 OR .216-56 UN 1/4-20 OR .250-20 UN 1/4-24 OR .250-24 UN 1/4-27 OR .250-27 UN 1/4-28 OR .250-28 UN 1/4-32 OR .250-32 UN 1/4-40 OR .250-40 UN 1/4-40 OR .250-40 UN 1/4-48 OR .250-48 UN 1/4-56 OR .250-56 UN 5/16-18 OR .3125-18 UN 5/16-20 OR .3125-20 UN 5/16-24 OR .3125-24 UN 5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-36 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .375-16 UN 5/16-40 OR .375-16 UN 3/8-16 OR .375-18 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-25 OR .375-27 UN 3/8-26 OR .375-27 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-30 OR .375-30 UN 3/8-30 OR .3	OR .216-36 UNS
12-56 OR .216-56  1/4-20 OR .250-20  1/4-24 OR .250-24  1/4-27 OR .250-27  1/4-28 OR .250-28  1/4-32 OR .250-32  1/4-36 OR .250-36  1/4-40 OR .250-40  1/4-48 OR .250-48  1/4-56 OR .250-56  5/16-18 OR .3125-18  5/16-20 OR .3125-20  5/16-24 OR .3125-27  5/16-32 OR .3125-32  5/16-36 OR .3125-36  5/16-40 OR .3125-40  5/16-40 OR .375-16  3/8-18 OR .375-16  3/8-24 OR .375-20  3/8-24 OR .375-24  3/8-27 OR .375-27  3/8-30 OR .375-32  3/8-30 OR .375-32  3/8-40 OR .375-40  3/8-40 OR .375-40  3/8-40 OR .375-40  1/16-16 OR .4375-14  7/16-16 OR .4375-14  7/16-16 OR .4375-27  7/16-28 OR .4375-29  7/16-29 OR .4375-20  1/16-20 OR .4375-20  1/16-21 OR .4375-20  7/16-22 OR .4375-20  7/16-23 OR .4375-20  7/16-24 OR .4375-32  7/16-27 OR .4375-32  1/16-27 OR .4375-32  1/16-28 OR .4375-32  1/16-29 OR .4375-30  1/16-20 OR .4375-30  1/16-21 OR .4375-30  1/16-22 OR .4375-30  1/16-23 OR .4375-30  1/16-24 OR .4375-40  1/2-12 OR .500-12  1/2-13 OR .500-13  1/2-14 OR .500-14  UN	OR .216-40 UNS
1/4-20 OR .250-20 UN 1/4-24 OR .250-24 UN 1/4-27 OR .250-27 UN 1/4-28 OR .250-28 UN 1/4-32 OR .250-32 UN 1/4-36 OR .250-36 UN 1/4-40 OR .250-40 UN 1/4-48 OR .250-48 UN 1/4-56 OR .250-56 UN 1/4-56 OR .3125-18 UN 5/16-20 OR .3125-20 UN 5/16-24 OR .3125-24 UN 5/16-32 OR .3125-25 UN 5/16-36 OR .3125-32 UN 5/16-40 OR .3125-32 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .3125-40 UN 5/16-40 OR .375-16 UN 3/8-16 OR .375-16 UN 3/8-24 OR .375-20 UN 3/8-24 OR .375-20 UN 3/8-24 OR .375-20 UN 3/8-25 OR .375-20 UN 3/8-26 OR .375-20 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-32 UN 3/8-30 OR .375-30 UN 3/8-30 OR	OR .216-48 UNS
1/4-24 OR .250-24 1/4-27 OR .250-27 1/4-28 OR .250-28 1/4-32 OR .250-32 1/4-36 OR .250-36 1/4-40 OR .250-40 1/4-48 OR .250-48 1/4-56 OR .250-56 5/16-18 OR .3125-18 5/16-20 OR .3125-20 5/16-24 OR .3125-27 5/16-32 OR .3125-32 5/16-36 OR .3125-36 5/16-40 OR .3125-36 5/16-40 OR .3125-40 1/4-56 OR .3125-40 1/4-56 OR .3125-36 1/4-57 OR .3125-32 1/4-56 OR .3125-32 1/4-58 OR .3125-36 1/4-59 OR .375-16 1/4-59 OR .375-16 1/5-40 OR .375-16 1/5-40 OR .375-24 1/5-20 OR .375-27 1/6-14 OR .375-32 1/6-32 OR .375-32 1/6-14 OR .4375-14 1/16-16 OR .4375-16 1/16-18 OR .4375-16 1/16-20 OR .4375-20 1/16-24 OR .4375-24 1/16-27 OR .4375-24 1/16-28 OR .4375-24 1/16-29 OR .4375-24 1/16-20 OR .4375-24 1/16-21 OR .4375-36 1/16-22 OR .4375-36 1/16-23 OR .4375-32 1/16-32 OR .4375-32 1/16-32 OR .4375-32 1/16-32 OR .4375-32 1/16-32 OR .4375-30 1/16-32 OR .500-13 1/2-13 OR .500-13 1/2-14 OR .500-14 1/2-14 OR .500-14	OR .216-56 UNS
1/4-27 OR .250-27 1/4-28 OR .250-28 1/4-32 OR .250-32 1/4-36 OR .250-36 1/4-40 OR .250-40 1/4-48 OR .250-48 1/4-56 OR .250-56 5/16-18 OR .3125-18 5/16-20 OR .3125-20 5/16-24 OR .3125-27 5/16-32 OR .3125-32 5/16-36 OR .3125-32 5/16-36 OR .3125-36 5/16-40 OR .3125-40 5/16-40 OR .3125-40 5/16-40 OR .3125-40 5/16-40 OR .375-16 3/8-18 OR .375-16 3/8-20 OR .375-27 3/8-28 OR .375-27 3/8-28 OR .375-27 3/8-36 OR .375-32 3/8-36 OR .375-32 3/8-40 OR .375-40 0N 3/8-14 OR .375-16 1/16-14 OR .4375-14 1/16-16 OR .4375-16 1/16-27 OR .4375-27 1/16-24 OR .4375-24 1/16-27 OR .4375-27 1/16-28 OR .4375-32 1/16-27 OR .4375-32 1/16-28 OR .4375-32 1/16-27 OR .4375-32 1/16-28 OR .4375-32 1/16-29 OR .4375-32 1/16-20 OR .4375-32 1/16-21 OR .4375-32 1/16-22 OR .4375-32 1/16-32 OR .4375-32 1/16-32 OR .4375-32 1/16-34 OR .4375-34 1/2-12 OR .500-13 1/2-13 OR .500-13 1/2-14 OR .500-14  UN 1/2-12 OR .500-14 UN 1/2-14 OR .500-14	O OR .250-20 UNC
1/4-28 OR .250-28 1/4-32 OR .250-32 1/4-36 OR .250-36 1/4-40 OR .250-40 1/4-48 OR .250-48 1/4-56 OR .250-56 5/16-18 OR .3125-18 5/16-20 OR .3125-20 5/16-24 OR .3125-27 5/16-28 OR .3125-32 5/16-36 OR .3125-36 5/16-36 OR .3125-36 5/16-40 OR .3125-40 5/16-40 OR .3125-40 5/16-40 OR .3125-40 5/16-40 OR .375-16 3/8-16 OR .375-16 3/8-24 OR .375-27 3/8-28 OR .375-27 3/8-28 OR .375-27 3/8-36 OR .375-32 3/8-36 OR .375-32 3/8-40 OR .375-16 1/16-14 OR .4375-16 1/16-15 OR .4375-16 1/16-27 OR .4375-27 1/16-28 OR .4375-27 1/16-29 OR .4375-27 1/16-20 OR .4375-20 1/16-21 OR .4375-32 1/16-20 OR .4375-32 1/16-21 OR .4375-32 1/16-22 OR .4375-24 1/16-27 OR .4375-27 1/16-28 OR .4375-28 1/16-20 OR .4375-32 1/16-30 OR .4375-32 1/16-31 OR .4375-32 1/16-32 OR .4375-32 1/16-33 OR .4375-34 1/2-14 OR .500-13 1/2-13 OR .500-13 1/2-14 OR .500-14  UN 1/2-12 OR .500-14 UN 1/2-14 OR .500-14	4 OR .250-24 UNS
1/4-32 OR .250-32 UN 1/4-36 OR .250-36 UN 1/4-40 OR .250-40 UN 1/4-48 OR .250-48 UN 1/4-56 OR .250-56 UN 5/16-18 OR .3125-18 UN 5/16-20 OR .3125-20 UN 5/16-24 OR .3125-24 UN 5/16-28 OR .3125-28 UN 5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 UN 5/16-48 OR .375-16 UN 3/8-18 OR .375-16 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-25 OR .375-27 UN 3/8-28 OR .375-27 UN 3/8-28 OR .375-32 UN 3/8-32 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .4375-36 UN 3/16-16 OR .4375-16 UN 7/16-16 OR .4375-20 UN 7/16-20 OR .4375-20 UN 7/16-20 OR .4375-20 UN 7/16-21 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	7 OR .250-27 UNS
1/4-36 OR .250-36 1/4-40 OR .250-40 1/4-48 OR .250-48 1/4-56 OR .250-56 5/16-18 OR .3125-18 5/16-20 OR .3125-20 5/16-24 OR .3125-24 5/16-27 OR .3125-27 5/16-32 OR .3125-32 5/16-36 OR .3125-32 UN 5/16-36 OR .3125-36 5/16-40 OR .3125-40 5/16-40 OR .3125-40 5/16-48 OR .375-16 3/8-18 OR .375-16 3/8-18 OR .375-20 3/8-24 OR .375-27 3/8-28 OR .375-27 UN 3/8-28 OR .375-27 UN 3/8-32 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .4375-36 UN 3/8-30 OR .4375-36 UN 3/8-30 OR .4375-30 UN 3/8-30 OR .4375-32 UN 3/8-30 OR .4375-30	8 OR .250-28 UNF
1/4-40 OR .250-40 1/4-48 OR .250-48 1/4-56 OR .250-56 5/16-18 OR .3125-18 5/16-20 OR .3125-20 5/16-24 OR .3125-24 5/16-27 OR .3125-27 5/16-28 OR .3125-32 5/16-32 OR .3125-32 5/16-30 OR .3125-36 5/16-40 OR .3125-40 5/16-40 OR .3125-40 5/16-40 OR .375-16 3/8-16 OR .375-16 3/8-18 OR .375-18 3/8-20 OR .375-20 3/8-24 OR .375-24 3/8-28 OR .375-27 3/8-28 OR .375-32 3/8-36 OR .375-36 UN 3/8-30 OR .375-30 UN 3/8-30 OR .375-30 UN 3/8-30 OR .375-27 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-30 UN 3/8-30 OR .4375-30 UN 3/8-40 OR .4375-14 UN 7/16-16 OR .4375-14 UN 7/16-20 OR .4375-20 T/16-20 OR .4375-32 UN 7/16-32 OR .4375-32 UN 7/16-32 OR .4375-32 UN 7/16-32 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	2 OR .250-32 UNEF
1/4-48 OR .250-48 1/4-56 OR .250-56 5/16-18 OR .3125-18 5/16-20 OR .3125-20 5/16-24 OR .3125-24 5/16-27 OR .3125-27 5/16-28 OR .3125-32 5/16-32 OR .3125-32 5/16-36 OR .3125-36 5/16-40 OR .3125-40 5/16-40 OR .3125-40 5/16-48 OR .375-16 3/8-18 OR .375-16 3/8-18 OR .375-12 3/8-24 OR .375-27 3/8-28 OR .375-27 3/8-28 OR .375-32 3/8-36 OR .375-32 3/8-36 OR .375-40 UN 390-27 7/16-14 OR .4375-14 7/16-16 OR .4375-16 7/16-20 OR .4375-24 7/16-20 OR .4375-24 7/16-32 OR .4375-25 7/16-32 OR .4375-32 7/16-32 OR .4375-36 UN 1/2-12 OR .500-12 1/2-13 OR .500-13 1/2-14 OR .500-14 UN 1/2-12 OR .500-14 UN 1/2-12 OR .500-14 UN 1/2-12 OR .500-14 UN 1/2-13 OR .500-14 UN 1/2-14 OR .500-14	5 OR .250-36 UNS
1/4-56 OR .250-56 5/16-18 OR .3125-18 5/16-20 OR .3125-20 5/16-24 OR .3125-24 5/16-27 OR .3125-27 5/16-28 OR .3125-28 5/16-32 OR .3125-32 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 5/16-40 OR .3125-40 5/16-40 OR .375-16 3/8-18 OR .375-16 3/8-18 OR .375-20 3/8-24 OR .375-27 3/8-28 OR .375-27 UN 3/8-28 OR .375-27 UN 3/8-32 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-36 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .4375-36 UN 3/8-30 OR .4375-16 UN 7/16-14 OR .4375-14 UN 7/16-20 OR .4375-24 UN 7/16-20 OR .4375-24 UN 7/16-20 OR .4375-32 UN 7/16-32 OR .4375-36 UN 7/16-32 OR .4375-36 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	O OR .250-40 UNS
5/16-18 OR .3125-18 5/16-20 OR .3125-20 UN 5/16-24 OR .3125-24 UN 5/16-27 OR .3125-27 UN 5/16-28 OR .3125-28 UN 5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 UN 5/16-48 OR .3125-48 UN 3/8-16 OR .375-16 UN 3/8-18 OR .375-16 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-27 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-36 UN 3/8-30 OR .4375-36 UN 7/16-16 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-25 OR .4375-25 UN 7/16-26 OR .4375-36 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14	8 OR .250-48 UNS
5/16-20 OR .3125-20 5/16-24 OR .3125-24 UN 5/16-27 OR .3125-27 UN 5/16-28 OR .3125-28 UN 5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 UN 5/16-48 OR .3125-48 UN 3/8-16 OR .375-16 UN 3/8-18 OR .375-18 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-28 OR .375-24 UN 3/8-32 OR .375-28 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .4375-36 UN 3/8-30 OR .4375-36 UN 7/16-16 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-25 OR .4375-32 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14	5 OR .250-56 UNS
5/16-24 OR .3125-24 5/16-27 OR .3125-27 UN 5/16-28 OR .3125-28 UN 5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 5/16-40 OR .3125-48 UN 3/8-16 OR .375-16 3/8-18 OR .375-18 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .4375-36 UN 7/16-16 OR .4375-18 UN 7/16-20 OR .4375-27 UN 7/16-24 OR .4375-27 UN 7/16-25 OR .4375-32 UN 7/16-36 OR .4375-36 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14	18 OR .3125-18 UNC
5/16-27 OR .3125-27 5/16-28 OR .3125-28 UN 5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 UN 5/16-48 OR .3125-48 UN 3/8-16 OR .375-16 UN 3/8-18 OR .375-16 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-32 UN 3/8-32 OR .375-32 UN 3/8-40 OR .375-36 UN 3/8-40 OR .375-40 UN 3/8-40 OR .375-14 UN 3/8-16 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-18 OR .4375-20 UN 7/16-24 OR .4375-20 UN 7/16-24 OR .4375-20 UN 7/16-25 OR .4375-20 UN 7/16-27 OR .4375-20 UN 7/16-27 OR .4375-20 UN 7/16-28 OR .4375-32 UN 7/16-29 OR .4375-32 UN 7/16-20 OR .4375-30 UN 7/16-21 OR .500-12 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-14 UN	20 OR .3125-20 UN
5/16-28 OR .3125-28 5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 UN 5/16-48 OR .3125-48 UN 3/8-16 OR .375-16 UN 3/8-18 OR .375-18 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-32 UN 3/8-30 OR .375-32 UN 3/8-30 OR .375-36 UN 3/8-30 OR .4375-36 UN 7/16-14 OR .4375-14 UN 7/16-15 OR .4375-20 UN 7/16-24 OR .4375-22 UN 7/16-25 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14	24 OR .3125-24 UNF
5/16-32 OR .3125-32 UN 5/16-36 OR .3125-36 UN 5/16-40 OR .3125-40 UN 5/16-48 OR .3125-48 UN 3/8-16 OR .375-16 UN 3/8-18 OR .375-18 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-40 UN 3/90-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-20 UN 7/16-24 OR .4375-20 UN 7/16-25 OR .4375-27 UN 7/16-26 OR .4375-20 UN 7/16-27 OR .4375-20 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .500-12 UN 1/2-12 OR .500-13 UN 1/2-14 OR .500-14 UN	27 OR .3125-27 UNS
5/16-36 OR .3125-36 5/16-40 OR .3125-40 UN 5/16-48 OR .3125-48 UN 3/8-16 OR .375-16 UN 3/8-18 OR .375-16 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-40 UN 3/90-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14	28 OR .3125-28 UN
5/16-40 OR .3125-40 5/16-48 OR .3125-48 3/8-16 OR .375-16 3/8-18 OR .375-18 3/8-20 OR .375-20 3/8-24 OR .375-24 3/8-27 OR .375-24 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-40 .390-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-20 UN 7/16-27 OR .4375-24 UN 7/16-27 OR .4375-24 UN 7/16-28 OR .4375-32 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .500-12 UN 1/2-12 OR .500-13 UN 1/2-14 OR .500-14	32 OR .3125-32 UNEF
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3/8-16 OR .375-16 3/8-18 OR .375-18 UN 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-36 UN 3/8-40 OR .375-40 UN 390-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-20 OR .4375-18 UN 7/16-24 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-25 OR .4375-27 UN 7/16-28 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14	40 OR .3125-40 UNS
3/8-18 OR .375-18 3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-40 UN 390-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-20 OR .4375-18 UN 7/16-24 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-24 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14	48 OR .3125-48 UNS
3/8-20 OR .375-20 UN 3/8-24 OR .375-24 UN 3/8-27 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-40 UN 390-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-20 OR .4375-18 UN 7/16-24 OR .4375-20 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .500-12 UN 1/2-12 OR .500-13 UN 1/2-14 OR .500-14 UN	5 OR .375-16 UNC
3/8-24 OR .375-24 3/8-27 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-40 UN 390-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-20 OR .4375-18 UN 7/16-24 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-25 OR .4375-27 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14	
3/8-27 OR .375-27 UN 3/8-28 OR .375-28 UN 3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-40 UN .390-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-18 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-36 OR .4375-32 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .500-12 UN 1/2-12 OR .500-13 UN 1/2-14 OR .500-14 UN	O OR .375-20 UN
3/8-28 OR .375-28  3/8-32 OR .375-32  UN  3/8-36 OR .375-36  JN  3/8-40 OR .375-40  .390-27  7/16-14 OR .4375-14  7/16-16 OR .4375-16  UN  7/16-18 OR .4375-18  UN  7/16-20 OR .4375-20  UN  7/16-24 OR .4375-24  UN  7/16-27 OR .4375-27  UN  7/16-32 OR .4375-32  UN  7/16-36 OR .4375-36  UN  1/2-12 OR .500-12  UN  1/2-13 OR .500-14  UN  1/2-14 OR .500-14	
3/8-32 OR .375-32 UN 3/8-36 OR .375-36 UN 3/8-40 OR .375-40 UN .390-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-18 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-24 UN 7/16-28 OR .4375-28 UN 7/16-32 OR .4375-32 UN 7/16-30 OR .4375-32 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	7 OR .375-27 UNS
3/8-36 OR .375-36 UN 3/8-40 OR .375-40 UN .390-27 UN 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-18 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-27 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .4375-30 UN 7/16-30 OR .500-12 UN 1/2-12 OR .500-13 UN 1/2-14 OR .500-14 UN	3 OR .375-28 UN
3/8-40 OR .375-40 UN .390-27 UN .390-27 UN .7/16-14 OR .4375-14 UN .7/16-16 OR .4375-16 UN .7/16-18 OR .4375-18 UN .7/16-20 OR .4375-20 UN .7/16-24 OR .4375-24 UN .7/16-27 OR .4375-27 UN .7/16-28 OR .4375-28 UN .7/16-36 OR .4375-32 UN .7/16-36 OR .4375-36 UN .7/16-36 OR .4375-40 UN .7/16-40 OR .4375-40 UN .7/16-12 OR .500-12 UN .7/16-13 OR .500-13 UN .5/12-14 OR .500-14 UN	2 OR .375-32 UNEF
.390-27 7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-18 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-32 OR .4375-32 UN 7/16-30 OR .4375-30 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-14 OR .4375-14 UN 7/16-16 OR .4375-16 UN 7/16-18 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-32 OR .4375-32 UN 7/16-36 OR .4375-36 UN 7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-16 OR .4375-16  7/16-18 OR .4375-18  UN  7/16-20 OR .4375-20  UN  7/16-24 OR .4375-24  UN  7/16-27 OR .4375-27  UN  7/16-28 OR .4375-28  UN  7/16-30 OR .4375-32  UN  7/16-30 OR .4375-30  UN  1/2-12 OR .500-12  UN  1/2-13 OR .500-13  UN  1/2-14 OR .500-14  UN	
7/16-18 OR .4375-18 UN 7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-32 OR .4375-32 UN 7/16-36 OR .4375-36 UN 7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-20 OR .4375-20 UN 7/16-24 OR .4375-24 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-32 OR .4375-32 UN 7/16-36 OR .4375-36 UN 7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-24 OR .4375-24 UN 7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-32 OR .4375-32 UN 7/16-36 OR .4375-36 UN 7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-27 OR .4375-27 UN 7/16-28 OR .4375-28 UN 7/16-32 OR .4375-32 UN 7/16-36 OR .4375-36 UN 7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-28 OR .4375-28 UN 7/16-32 OR .4375-32 UN 7/16-36 OR .4375-36 UN 7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-32 OR .4375-32 UN 7/16-36 OR .4375-36 UN 7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-36 OR .4375-36 UN 7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
7/16-40 OR .4375-40 UN 1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
1/2-12 OR .500-12 UN 1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
1/2-13 OR .500-13 UN 1/2-14 OR .500-14 UN	
1/2-14 OR .500-14 UN	
1/2-10 UK .500-10 UN	
	J OK .300-10 UN

1/2-18 OR .500-18	UNS
1/2-20 OR .500-20	UNF
1/2-24 OR .500-24	UNS
1/2-27 OR .500-27	UNS
1/2-28 OR .500-28	UNEF
1/2-32 OR .500-32	UN
1/2-36 OR .500-36	UNS
1/2-40 OR .500-40	UNS
9/16-12 OR .5625-12	UNC
9/16-14 OR .5625-14	UNS
9/16-16 OR .5625-16	UN
9/16-18 OR .5625-18	UNF
9/16-20 OR .5625-20	UN
9/16-24 OR .5625-24	UNEF
9/16-27 OR .5625-27	UNS
9/16-28 OR .5625-28	UN
9/16-32 OR .5625-32	UN
9/16-36 OR .5625-36	UNS
9/16-40 OR .5625-40	UNS
5/8-11 OR .625-11	UNC
5/8-12 OR .625-12	UN
5/8-14 OR .625-14	UNS
5/8-16 OR .625-16	UN
5/8-18 OR .625-18	UNF
5/8-24 OR .625-24	UNEF
5/8-27 OR .625-27	UNS
5/8-28 OR .625-28	UN
5/8-32 OR .625-32	UN
5/8-36 OR .625-36	UNS
11/16-12 OR .6875-12	UN
11/16-16 OR .6875-16	UN
11/16-20 OR .6875-20	UN
11/16-24 OR .6875-24	UNEF
11/16-28 OR .6875-28	UN
11/16-32 OR .6875-32	UN
3/4-10 OR .750-10	UNC
3/4-12 OR .750-12	UN
3/4-14 OR .750-14	UNS
3/4-16 OR .750-16	UNF
3/4-18 OR .750-18	UNS
3/4-20 OR .750-20	UNEF
3/4-24 OR .750-24	UNS
3/4-27 OR .750-27	UNS
3/4-28 OR .750-28	UN
3/4-32 OR .750-32	UN
3/4-36 OR .750-36	UNS

3/4-40 OR .750-40	UNS
13/16-12 OR .8125-12	UN
13/16-16 OR .8125-16	UN
13/16-20 OR .8125-20	UNEF
13/16-28 OR .8125-28	UN
13/16-32 OR .8125-32	UN
7/8-9 OR .875-9	UNC
7/8-10 OR .875-10	UNS
7/8-12 OR .875-12	UN
7/8-14 OR .875-14	UNF
7/8-16 OR .875-16	UN
7/8-18 OR .875-18	UNS
7/8-20 OR .875-20	UNEF
7/8-24 OR .875-24	UNS
7/8-27 OR .875-27	UNS
7/8-28 OR .875-28	UN
7/8-32 OR .875-32	UN
7/8-36 OR .875-36	UNS
7/8-40 OR .875-40	UNS
15/16-12 OR .9375-12	UN
15/16-16 OR .9375-16	UN
15/16-20 OR .9375-20	UNEF
15/16-28 OR .9375-28	UN
15/16-32 OR .9375-32	UN
1-8 OR 1.000-8	UNC
1-10 OR 1.000-10	UNS
1-12 OR 1.000-12	UNF
1-14 OR 1.000-14	UNS
1-16 OR 1.000-16	UN
1-18 OR 1.000-18	UNS
1-20 OR 1.000-20	UNEF
1-24 OR 1.000-24	UNS
1-27 OR 1.000-27	UNS
1-28 OR 1.000-28	UN
1-32 OR 1.000-32	UN
1-36 OR 1.000-36	UNS
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1 1/16-12 OR 1.0625-12	UN
1 1/16-16 OR 1.0625-16	UN
1 1/16-18 OR 1.0625-18	UNEF
1 1/16-20 OR 1.0625-20	UN
1 1/16-28 OR 1.0625-28	UN
1 1/8-7 OR 1.125-7	UNC
1 1/8-8 OR 1.125-8	UN
1 1/8-10 OR 1.125-10	UNS

1 1/8-12 OR 1.125-12	UNF
1 1/8-14 OR 1.125-14	UNS
1 1/8-16 OR 1.125-16	UN
1 1/8-18 OR 1.125-18	UNEF
1 1/8-20 OR 1.125-20	UN
1 1/8-24 OR 1.125-24	UNS
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1 3/16-8 OR 1.188-8	UN
1 3/16-12 OR 1.188-12	UN
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1 3/16-18 OR 1.188-18	UNEF
1 3/16-20 OR 1.188-20	UN
1 3/16-28 OR 1.188-28	UN
1 1/4-7 OR 1.250-7	UNC
1 1/4-8 OR 1.250-8	UN
1 1/4-10 OR 1.250-10	UNS
1 1/4-12 OR 1.250-12	UNF
1 1/4-14 OR 1.250-14	UNS
1 1/4-16 OR 1.250-16	UN
1 1/4-18 OR 1.250-18	UNEF
1 1/4-20 OR 1.250-20	UN
1 1/4-24 OR 1.250-24	UNS
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1 5/16-8 OR 1.312-8	UN
1 5/16-12 OR 1.312-12	UN
1 5/16-16 OR 1.312-16	UN
1 5/16-18 OR 1.312-18	UNEF
1 5/16-20 OR 1.312-20	UN
1 5/16-28 OR 1.312-28	UN
1 3/8-6 OR 1.375-6	UNC
1 3/8-8 OR 1.375-8	UN
1 3/8-10 OR 1.375-10	UNS
1 3/8-12 OR 1.375-12	UNF
1 3/8-14 OR 1.375-14	UNS
1 3/8-16 OR 1.375-16	UN
1 3/8-18 OR 1.375-18	UNEF
1 3/8-20 OR 1.375-20	UN
1 3/8-24 OR 1.375-24	UNS
1 3/8-28 OR 1.375-28	UN
1 7/16-6 OR 1.4375-6	UN
1 7/16-8 OR 1.438-8	UN
1 7/16-12 OR 1.438-12	UN
1 7/16-16 OR 1.438-16	UN
1 7/16-18 OR 1.438-18	UNEF
1 7/16-20 OR 1.438-20	UN
1 7/16-28 OR 1.438-28	UN

1 1/2-6 OR 1.500-6	UNC
1 1/2-8 OR 1.500-8	UN
1 1/2-10 OR 1.500-10	UNS
1 1/2-12 OR 1.500-12	UNF
1 1/2-14 OR 1.500-14	UNS
1 1/2-16 OR 1.500-16	UN
1 1/2-18 OR 1.500-18	UNEF
1 1/2-20 OR 1.500-20	UN
1 1/2-24 OR 1.500-24	UNS
1 1/2-28 OR 1.500-28	UN
1 9/16-6 OR 1.562-6	UN
1 9/16-8 OR 1.562-8	UN
1 9/16-12 OR 1.562-12	UN
1 9/16-16 OR 1.562-16	UN
1 9/16-18 OR 1.562-18	UNEF
1 9/16-20 OR 1.562-20	UN
1 5/8-6 OR 1.625-6	UN
1 5/8-8 OR 1.625-8	UN
1 5/8-10 OR 1.625-10	UNS
1 5/8-12 OR 1.625-12	UN
1 5/8-14 OR 1.625-14	UNS
1 5/8-16 OR 1.625-16	UN
1 5/8-18 OR 1.625-18	UNEF
1 5/8-20 OR 1.625-20	UN
1 5/8-24 OR 1.625-24	UNS
1 11/16-6 OR 1.688-6	UN
1 11/16-8 OR 1.688-8	UN
1 11/16-12 OR 1.688-12	UN
1 11/16-16 OR 1.688-16	UN
1 11/16-18 OR 1.688-18	UNEF
1 11/16-20 OR 1.688-20	UN
1 3/4-5 OR 1.750-5	UNC
1 3/4-6 OR 1.750-6	UN
1 3/4-8 OR 1.750-8	UN
1 3/4-10 OR 1.750-10	UNS
1 3/4-12 OR 1.750-12	UN
1 3/4-14 OR 1.750-14	UNS
1 3/4-16 OR 1.750-16	UN
1 3/4-20 OR 1.750-20	UN
1 13/16-6 OR 1.812-6	UN
1 13/16-8 OR 1.812-8	UN
1 13/16-12 OR 1.812-12	UN UN
1 13/16-16 OR 1.812-16	
1 13/16-20 OR 1.812-20 1 7/8-6 OR 1.875-6	UN
1 7/8-8 OR 1.875-8	UN UN
1 1/0 0 OK 1.013-0	014

1 7/8-10 OR 1.875-10	UNS
1 7/8-12 OR 1.875-12	UN
1 7/8-14 OR 1.875-14	UNS
1 7/8-16 OR 1.875-16	UN
1 7/8-18 OR 1.875-18	UNS
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1 15/16-12 OR 1.938-12	UN
1 15/16-16 OR 1.938-16	UN
1 15/16-20 OR 1.938-20	UN
2-4 1/2 OR 2.000-4.5	UNC
2-6 OR 2.000-6	UN
2-8 OR 2.000-8	UN
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2-12 OR 2.000-12	UN
2-14 OR 2.000-14	UNS
2-16 OR 2.000-16	UN
2-18 OR 2.000-18	UNS
2-20 OR 2.000-20	UN
2 1/16-16 OR 2.062-16	UNS
2 1/8-6 OR 2.125-6	UN
2 1/8-8 OR 2.125-8	UN
2 1/8-12 OR 2.125-12	UN
2 1/8-16 OR 2.125-16	UN
2 1/8-20 OR 2.125-20	UN
2 3/16-16 OR 2.188-16	UNS
2 1/4-4 1/2 OR 2.250-4.5	UNC
2 1/4-6 OR 2.250-6	UN
2 1/4-8 OR 2.250-8	UN
2 1/4-10 OR 2.250-10	UNS
2 1/4-12 OR 2.250-12	UN
2 1/4-14 OR 2.250-14	UN
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2 1/4-18 OR 2.250-18	UNS
2 1/4-20 OR 2.250-20	UN
2 5/16-16 OR 2.312-16	UNS
2 3/8-6 OR 2.375-6	UN
2 3/8-8 OR 2.375-8	UN
2 3/8-12 OR 2.375-12	UN
2 3/8-16 OR 2.375-16	UN
2 3/8-20 OR 2.375-20	UN
2 7/16-16 OR 2.438-16	UNS
2 1/2-4 OR 2.500-4	UNC
2 1/2-6 OR 2.500-6	UN
2 1/2-8 OR 2.500-8	UN

2 1/2-10 OR 2.500-10	UNS
2 1/2-12 OR 2.500-12	UN
2 1/2-14 OR 2.500-14	UNS
2 1/2-16 OR 2.500-16	UN
2 1/2-18 OR 2.500-18	UNS
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2 5/8-8 OR 2.625-8	UN
2 5/8-12 OR 2.625-12	UN
2 5/8-16 OR 2.625-16	UN
2 5/8-20 OR 2.625-20	UN
2 3/4-4 OR 2.750-4	UNC
2 3/4-6 OR 2.750-6	UN
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2 3/4-10 OR 2.750-10	UNS
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2 3/4-18 OR 2.750-18	UNS
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2 7/8-12 OR 2.875-12	UN
2 7/8-16 OR 2.875-16	UN
2 7/8-20 OR 2.875-20	UN
3-4 OR 3.000-4	UNC
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3-8 OR 3.000-8	UN
3-10 OR 3.000-10	UNS
3-12 OR 3.000-12	UN
3-14 OR 3.000-14	UNS
3-16 OR 3.000-16	UN
3-18 OR 3.000-18	UNS
3-20 OR 3.000-20	UN
3 1/8-6 OR 3.125-6	UN
3 1/8-8 OR 3.125-8	UN
3 1/8-12 OR 3.125-12	UN
3 1/8-16 OR 3.125-16	UN
3 1/4-4 OR 3.250-4	UNC
3 1/4-6 OR 3.250-6	UN
3 1/4-8 OR 3.250-8	UN
3 1/4-10 OR 3.250-10	UNS
3 1/4-12 OR 3.250-12	UN
3 1/4-14 OR 3.250-14	UNS
3 1/4-16 OR 3.250-16	UN
3 1/4-18 OR 3.250-18	UNS
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3 3/8-6 OR 3.375-6	UN
3 3/8-8 OR 3.375-8	UN
3 3/8-12 OR 3.375-12	UN
3 3/8-16 OR 3.375-16	UN
3 1/2-4 OR 3.500-4	UNC
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3 1/2-8 OR 3.500-8	UN
3 1/2-10 OR 3.500-10	UNS
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3 1/2-16 OR 3.500-16	UN
3 1/2-18 OR 3.500-18	UNS
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3 5/8-8 OR 3.625-8	UN
3 5/8-12 OR 3.625-12	UN
3 5/8-16 OR 3.625-16	UN
3 3/4-4 OR 3.750-4	UNC
3 3/4-6 OR 3.750-6	UN
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3 3/4-12 OR 3.750-12	UN
3 3/4-14 OR 3.750-14	UNS
3 3/4-16 OR 3.750-16	UN
3 3/4-18 OR 3.750-18	UNS
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3 7/8-8 OR 3.875-8	UN
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3 7/8-16 OR 3.875-16	UN
4-4 OR 4.000-4	UNC
4-6 OR 4.000-6	UN
4-8 OR 4.000-8	UN
4-10 OR 4.000-10	UNS
4-12 OR 4.000-12	UN
4-14 OR 4.000-14	UNS
4-16 OR 4.000-16	UN
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4 1/4-16 OR 4.250-16	UN
4 3/8-6 OR 4.375-6	UN
4 3/8-12 OR 4.375-12	UN
70	

4 3/8-16 OR 4.375-16	UN
4 1/2-4 OR 4.500-4	UN
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4 1/2-14 OR 4.500-14	UNS
4 1/2-16 OR 4.500-16	UN
4 5/8-6 OR 4.625-6	UN
4 5/8-12 OR 4.625-12	UN
4 5/8-16 OR 4.625-16	UN
4 3/4-4 OR 4.750-4	UN
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4 3/4-10 OR 4.750-10	UNS
4 3/4-12 OR 4.750-12	UN
4 3/4-14 OR 4.750-14	UNS
4 3/4-16 OR 4.750-16	UN
4 7/8-6 OR 4.875-6	UN
4 7/8-12 OR 4.875-12	UN
4 7/8-16 OR 4.875-16	UN
5-4 OR 5.000-4	UN
5-8 OR 5.000-8	UN
5-10 OR 5.000-10	UNS
5-12 OR 5.000-12	UN
5-14 OR 5.000-14	UNS
5-16 OR 5.000-16	UN
5 1/8-12 OR 5.125-12	UN
5 1/8-16 OR 5.125-16	UN
5 1/4-4 OR 5.250-4	UN
5 1/4-10 OR 5.250-10	UNS
5 1/4-12 OR 5.250-12	UN
5 1/4-14 OR 5.250-14	UNS
5 1/4-16 OR 5.250-16	UN
5 3/8-12 OR 5.375-12	UN
5 3/8-16 OR 5.375-16	UN
5 1/2-4 OR 5.500-4	UN
5 1/2-10 OR 5.500-10	UNS
5 1/2-12 OR 5.500-12	UN
5 1/2-14 OR 5.500-14	UNS
5 1/2-16 OR 5.500-16	UN
5 5/8-12 OR 5.625-12	UN
5 3/4-4 OR 5.750-4	UN
5 5/8-16 OR 5.625-16	UN
5 3/4-4 OR 5.750-4	UN
5 3/4-10 OR 5.750-10	UNS
5 3/4-12 OR 5.750-12	UN
5 3/4-14 OR 5.750-14	UNS

5 3/4-16 OR 5.750-16	UN
5 7/8-12 OR 5.875-12	UN
5 7/8-16 OR 5.875-16	UN
6-4 OR 6.000-4	UN
6-10 OR 6.000-10	UNS
6-12 OR 6.000-12	UN
6-14 OR 6.000-14	UNS
6-16 OR 6.000-16	UN

## ISO METRIC SCREW THREAD SIZE/THREAD PITCH \*

SIZE IN MM	PITCH IN MM		
(BASIC MAJOR DIAMETER)	ISO-M	]	ISO-S
COARSE	<u>FINE</u>	COARSE	
0.25			0.075
0.3			0.08
0.35			0.09
0.4			0.1
0.45			0.1
0.5			0.125
0.55			0.125
0.6			0.15
0.7			0.175
0.8			0.2
0.9			0.225
1.0			0.25
1.1			0.25
1.2			0.25
1.4			0.30
1.6			0.35
1.8			0.35
2.0			0.40
2.2			0.45
2.5			0.45
3.0			0.50
3.5			0.60
4.0			0.70
4.5			0.75
5.0			0.80
6.0	1.00		
7.0	1.00		
8.0	1.25	1.00	

 1.25	1.50	10.0
 1.25	1.75	12.0
1.50	2.00	14.0
 1.50	2.00	16.0
 1.50	2.50	18.0
 1.50	2.50	20.0
 1.50	2.50	22.0
 2.00	3.00	24.0
 2.00	3.00	27.0
 2.00	3.50	30.0
 2.00	3.50	33.0
 3.00	4.00	36.0
 3.00	4.00	39.0

ISO METRIC THREADS ARE DESIGNATED BY A LETTER (M OR S), FOLLOWED BY THE SIZE AND PITCH IN MILLIMETERS, AS SHOWN BELOW. WHERE THERE IS NO INDICATION OF PITCH, THE COARSE PITCH IS IMPLIED.

EXAMPLES: M6X1 (INDICATES 6-MM DIAMETER, 1-MM PITCH); S2 (INDICATES 2-MM DIAMETER, COARSE (0.4) PITCH)

M6X1 (INDICATES 6-MM DIAMETER, 1-MM PITCH);

S2 (INDICATES 2-MM DIAMETER, COARSE (0.4) PITCH)

#### OUNCE TO DECIMAL OF A POUND CONVERSION CHART

<u>OUNCES</u>	POUNDS
1	0.062
2	0.125
3	0.188
4	0.250
5	0.312
6	0.375
7	0.438
8	0.500

<sup>\*</sup> Adapted from SCREW THREAD STANDARDS FOR FEDERAL SERVICES (1957), Handbook H28, Part III, Table 14.2.

<u>OUNCES</u>	<u>POUNDS</u>
9	0.562
10	0.625
11	0.688
12	0.750
13	0.812
14	0.875
15	0.938
16	1.000

# **FIIG Change List**

FIIG Change List, Effective September 3, 2003

Revised MRC CQGC, Appl Key C, Section 1 to As Required.

Revised MRC RTSE, Section 1 to As Required.

Deleted MRC AFSV from Section 1.

Deleted MRC AHBP from Section 1.

Added MRC CLQL to Section 1.

Added MRC CXCY to Section 1.